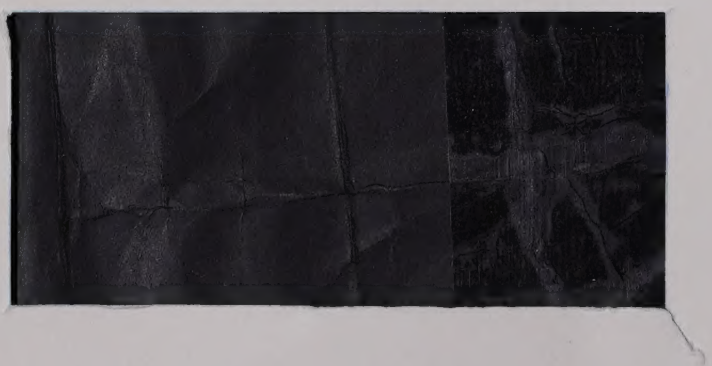
Electronic Services, Los Angeles
M177746X

S5000

SCHEMATICS

tau-tron

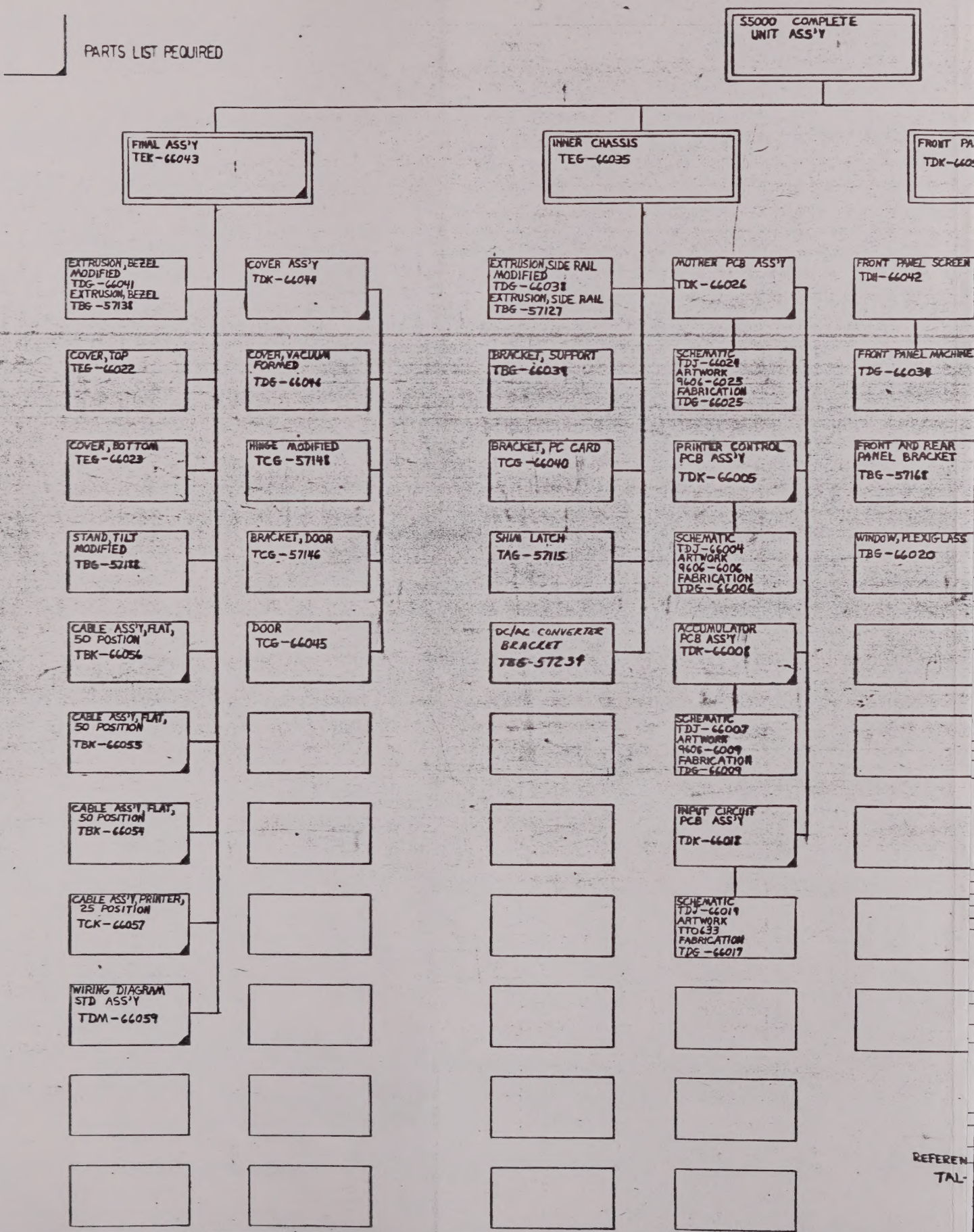
A UNIT OF
GENERAL SIGNAL



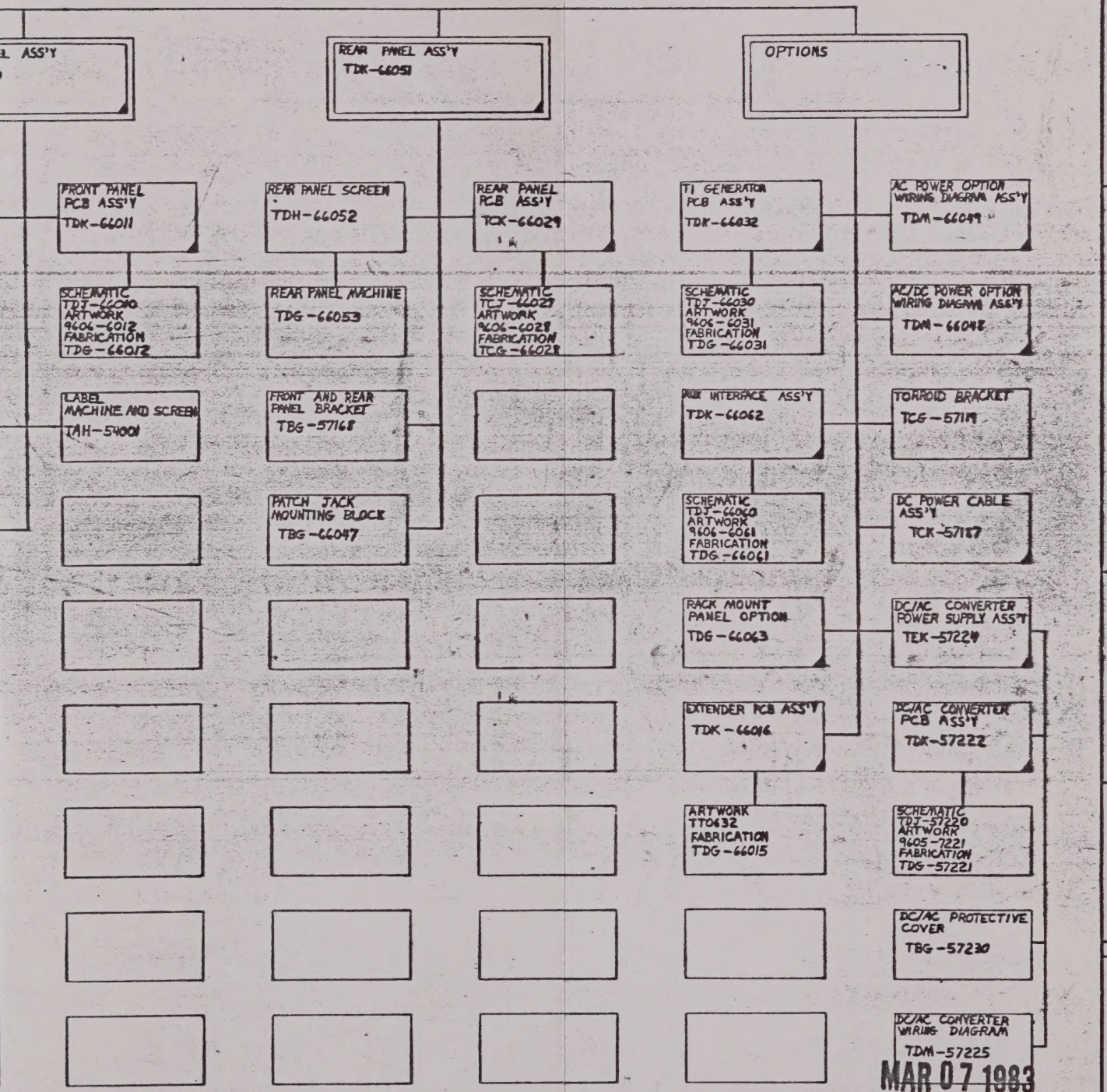
S5000

SCHEMATICS

PARTS LIST REQUIRED


S5000 COMPLETE UNIT ASS'Y
FINAL ASS'Y TEK-66043
INNER CHASSIS TEG-66035
FRONT PA TDK-66
EXTRUSION, BEZEL MODIFIED TDG-66041 EXTRUSION, BEZEL TBG-57138
COVER ASS'Y TDK-66044
EXTRUSION, SIDE RAIL MODIFIED TDG-66031 EXTRUSION, SIDE RAIL TBG-57127
MOTHER PCB ASS'Y TDK-66026
FRONT PANEL SCREEN TDH-66042
COVER, TOP TEG-66022
COVER, VACUUM FORMED TDG-66046
BRACKET, SUPPORT TBG-66039
SCHEMATIC TDJ-66024 ARTWORK 9606-6025 FABRICATION TDG-66025
FRONT PANEL MACHINE TDG-66038
COVER, BOTTOM TEG-66023
HINGE MODIFIED TCG-57148
BRACKET, PC CARD TCG-66040
PRINTER CONTROL PCB ASS'Y TDK-66005
FRONT AND REAR PANEL BRACKET TBG-57168
STAND, TILT MODIFIED TBG-57128
BRACKET, DOOR TCG-57146
SHIM LATCH TAG-57115
SCHEMATIC TDJ-66004 ARTWORK 9606-6006 FABRICATION TDG-66006
WINDOW, PLEXIGLASS TBG-66020
CABLE ASS'Y, FLAT, 50 POSTION TBK-66056
DOOR TCG-66045
DC/AC CONVERTER BRACKET TBG-57239
ACCUMULATOR PCB ASS'Y TDK-66008
CABLE ASS'Y, FLAT, 50 POSITION TBK-66055
SCHEMATIC TDJ-66007 ARTWORK 9606-6009 FABRICATION TDG-66009
CABLE ASS'Y, FLAT, 50 POSITION TBK-66054
INPUT CIRCUIT PCB ASS'Y TDK-66018
CABLE ASS'Y, PRINTER, 25 POSITION TCK-66057
SCHEMATIC TDJ-66019 ARTWORK TTO633 FABRICATION TDG-66017
WIRING DIAGRAM STD ASS'Y TDM-66059
REFEREN
TAL-

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED


L ASS'Y
REAR PANEL ASS'Y
TDK-66051
OPTIONS
FRONT PANEL PCB ASS'Y TDK-66011
REAR PANEL SCREEN TDH-66052
REAR PANEL PCB ASS'Y TCK-66029
TI GENERATOR PCB ASS'Y TDK-66032
AC POWER OPTION WIRING DIAGRAM ASS'Y TDM-66049
SCHEMATIC TDJ-66010 ARTWORK 9606-6012 FABRICATION TDG-66012
REAR PANEL MACHINE TDG-66053
SCHEMATIC TDJ-66027 ARTWORK 9606-6028 FABRICATION TDG-66028
SCHEMATIC TDJ-66030 ARTWORK 9606-6031 FABRICATION TDG-66031
AC/DC POWER OPTION WIRING DIAGRAM ASS'Y TDM-66048
LABEL MACHINE AND SCREEN TAH-54001
FRONT AND REAR PANEL BRACKET TBG-57168
DMM INTERFACE ASS'Y TDK-66062
TOROID BRACKET TCG-57179
PATCH JACK MOUNTING BLOCK TBG-66047
SCHEMATIC TDJ-66060 ARTWORK 9606-6061 FABRICATION TDG-66061
DC POWER CABLE ASS'Y TCK-57187
RACK MOUNT PANEL OPTION TDG-66063
DC/AC CONVERTER POWER SUPPLY ASS'Y TEK-57224
EXTENDER PCB ASS'Y TDK-66016
DC/AC CONVERTER PCB ASS'Y TDK-57222
ARTWORK TT0632 FABRICATION TDG-66015
SCHEMATIC TDJ-57220 ARTWORK 9605-7221 FABRICATION TDG-57221
DC/AC PROTECTIVE COVER TBG-57230
DC/AC CONVERTER WIRING DIAGRAM TDM-57225
MAR 07 1983

E DOC LIST
66033

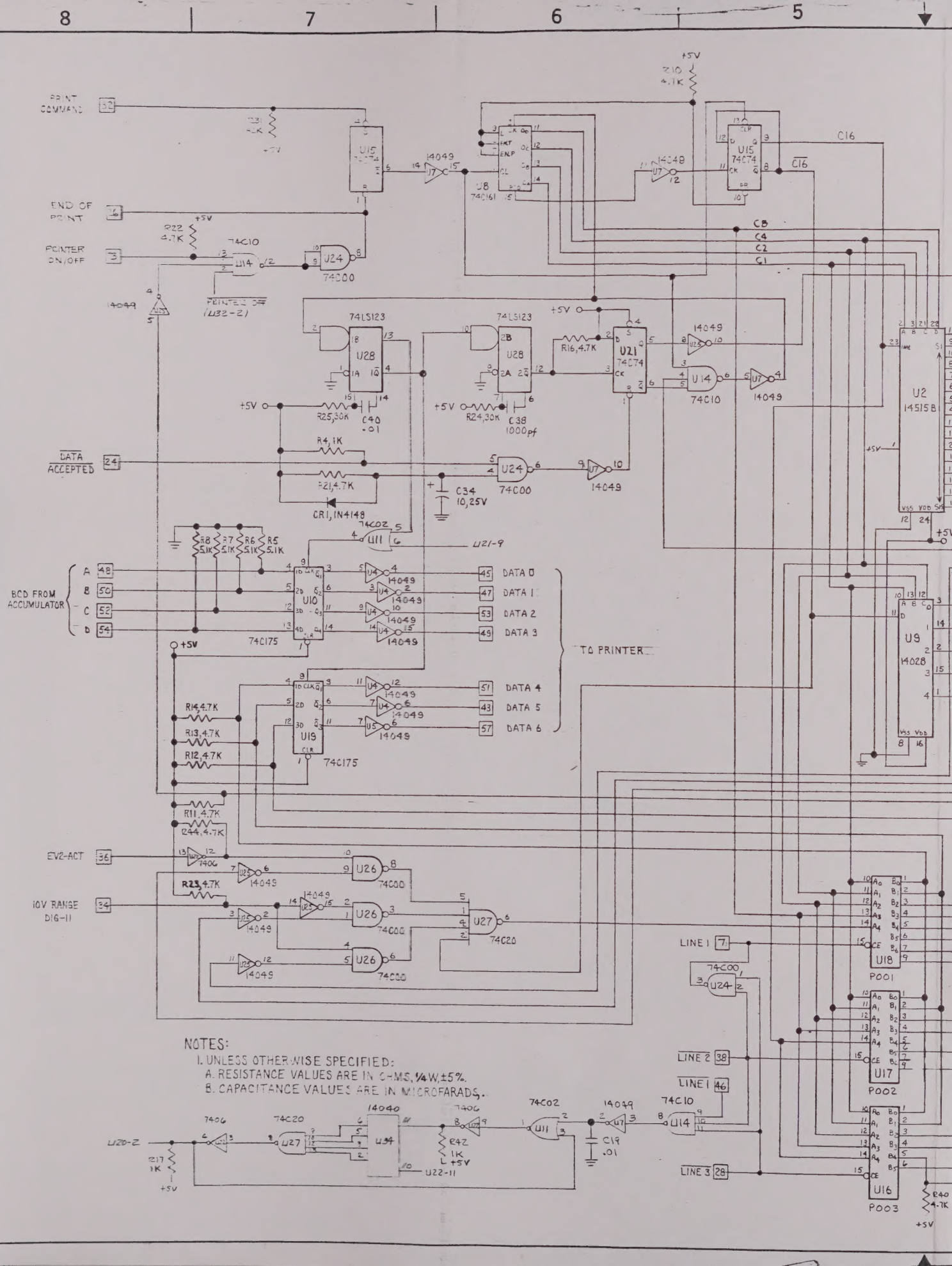
WHERE APPLICABLE REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES, ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:	CONTR NO. DR D. TAMGOCHIAN 5/11/81 CHK 5/12/81 APPD APPROVED BY DIRECTION OF

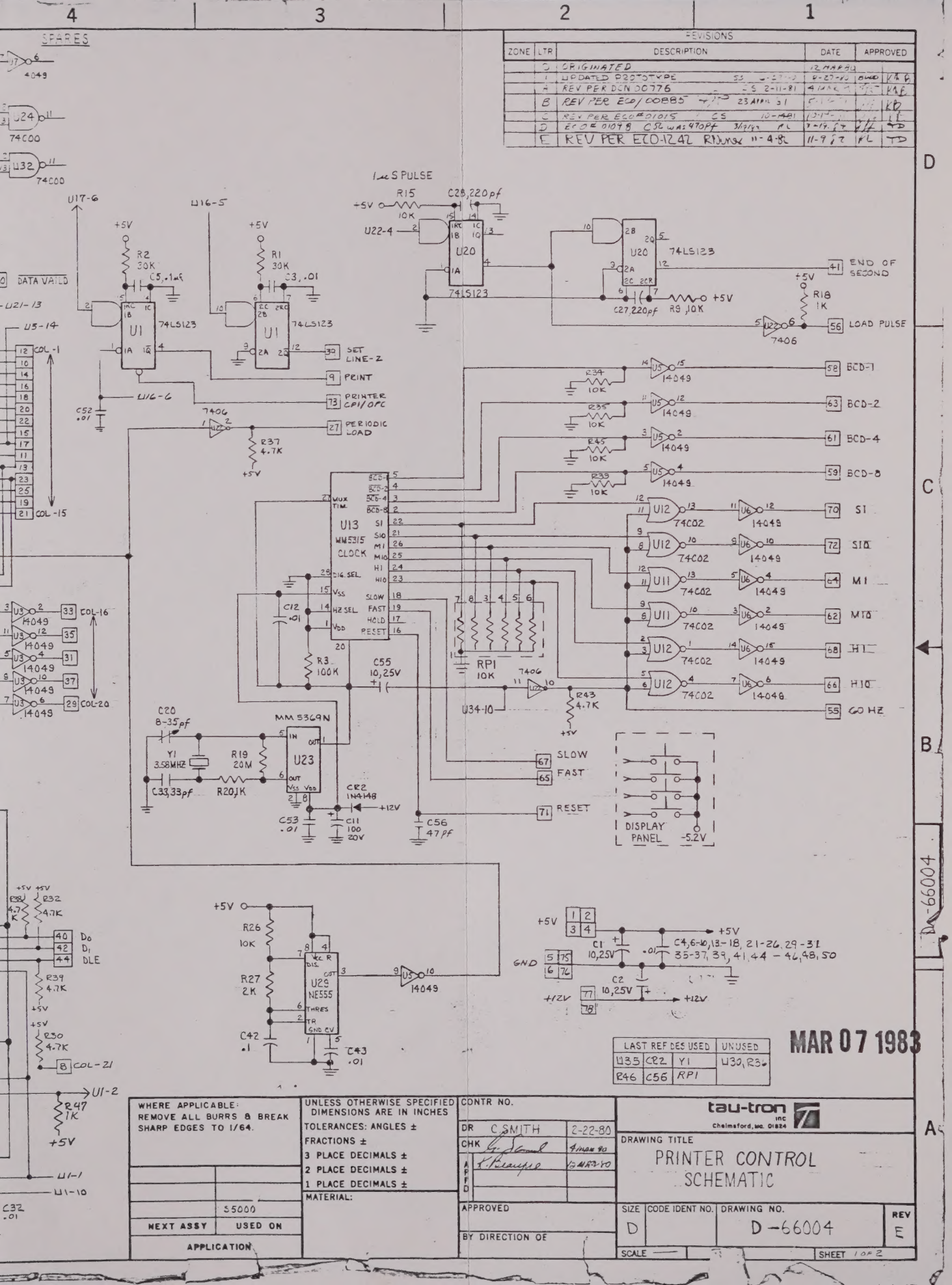
NEXT ASSY | USED ON
APPLICATION

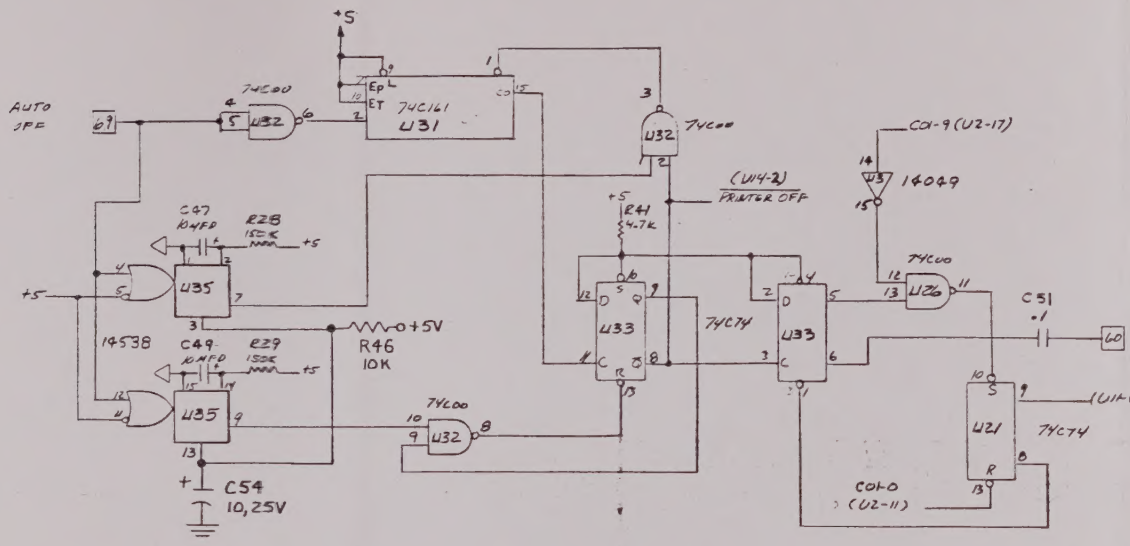
tau-tron INC Chelmsford, MA 01824

DRAWING TITLE
S5000
UNIT ASS'Y BLOCK DIAGRAM

SIZE	CODE IDENT NO.	DRAWING NO.	REV
		TDN-66001	0
SCALE	S5000	SHEET 1 of 1	


PRINT COMMAND
32
R23 4.7K
+5V
U15 74C74
14049
U7
U8 74C161
ENT
ENP
CL
U15 74C74
C16
C16
R10 4.7K
END OF PRINT
14
R22 4.7K
POINTER ON/OFF
3
74C10
U14
U24
74C00
14049
POINTER ON (U32-2)
CB
C4
C2
C1
74LS123
U28
R25,30K
C40 .01
R24,30K
C38 1000pf
R16,4.7K
U21 74C74
74C10
14049
U2 14515B
DATA ACCEPTED
24
R4,1K
R21,4.7K
CR1, IN4148
C34 10,25V
U21-9
74C02
U11
R8 5.1K
R7 5.1K
R6 5.1K
R5 5.1K
BCD FROM ACCUMULATOR
A 48
B 50
C 52
D 54
U10
74C175
DATA 0
DATA 1
DATA 2
DATA 3
45
47
53
49
TO PRINTER
U19
74C175
DATA 4
DATA 5
DATA 6
51
43
57
R14,4.7K
R13,4.7K
R12,4.7K
R11,4.7K
R44,4.7K
U9 14028
EV2-ACT
36
74C06
U26
74C00
R23,4.7K
10V RANGE DIG-11
34
U27
74C20
LINE 1
7
LINE 2
38
LINE 3
28
LINE 4
46
U18
U17
U16
P001
P002
P003
R40 4.7K
NOTES:
1. UNLESS OTHERWISE SPECIFIED:
A. RESISTANCE VALUES ARE IN OHMS, 1/4W, ±5%.
B. CAPACITANCE VALUES ARE IN MICROFARADS.
U20-2
R17 1K
U34 14040
R42 1K
U22-11
C19 .01


SPARES
REVISIONS
ZONE | LTR | DESCRIPTION | DATE | APPROVED
ORIGINATED 12 MAR 80
UPDATED PROTOTYPE 5-27-80
REV PER DCN 00776 4 MAR 81
REV PER ECO/ 00885 23 APRIL 81
REV PER ECO# 01015 10-MAR 1
ECO# 01098 C56 WAS 470PF 3/9/82
REV PER ECO-1242 R18 MAX 11-4-82
1 mS PULSE
R15 10K
C28, 220pf
U22-4
U20
74LS123
C27, 220pf
R9, 10K
+5V
R18 1K
7406
END OF SECOND
LOAD PULSE
U17-6
U16-5
R2 30K
C5, .1mF
R1 30K
C3, .01
U1
74LS123
DATA VALID
U21-13
U5-14
COL-1
COL-15
SET LINE-2
PRINT
PRINTER CPI/OPC
PERIODIC LOAD
U16-6
C52 .01
R37 4.7K
BCD-1
BCD-2
BCD-4
BCD-8
R34 10K
R35 10K
R45 10K
R33 10K
14049
U13
MM5315
CLOCK
SI
SIO
MI
MIO
HI
HIO
SLOW
FAST
HOLD
RESET
74C02
14049
C12 .01
R3 100K
C55 10,25V
RP1 10K
R43 4.7K
U34-10
C20 8-35pf
Y1 3.58MHZ
R19 20M
R20, 1K
C33, 33pf
MM5369N
U23
CR2 IN4148
+12V
C53 .01
C11 100 20V
C56 47pf
SLOW
FAST
RESET
DISPLAY PANEL
-5.2V
COL-16
COL-20
R32 4.7K
R38 4.7K
R39 4.7K
R30 4.7K
COL-21
U1-2
R47 1K
U1-1
U1-10
C32 .01
R26 10K
R27 2K
U29 NE555
C42 .1
C43 .01
C1 10,25V
C4,6-10,13-18,21-26,29-31 35-37,39,41,44-46,48,50 .01
C2 10,25V
GND
LAST REF DES USED
U35 | C82 | Y1
R46 | C56 | RP1
UNUSED
U30, R36
MAR 07 1983
WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES: ANGLES ±
FRACTIONS ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±
MATERIAL:
S5000
NEXT ASSY
USED ON
APPLICATION
CONTR NO.
DR C. SMITH 2-22-80
CHK G. Sound 4 MAR 80
APPD F. Pierce 13 MAR 80
APPROVED
BY DIRECTION OF
tau-tron inc
Chelmsford, Mass. 01824
DRAWING TITLE
PRINTER CONTROL SCHEMATIC
SIZE D
CODE IDENT NO.
DRAWING NO. D-66004
REV E
SCALE
SHEET 1 OF 2
D-66004


+5
AUTO
IPE
67
74C00
U32
74C161
U31
Ep
ET
CO
74C00
U32
(U14-2)
PRINTER OFF
CO1-9 (U2-17)
14
U3
14049
15
+5
R41
4.7K
C47
10MFD
R28
15K
MAX
+5
U35
14538
C49
10MFD
R29
15K
MAX
+5
U35
+5
R46
10K
+5V
74C00
U32
74C74
U33
74C74
U33
74C00
U26
C51
.1
60
74C74
U21
(U14
CO10
(U2-11)
C54
10,25V

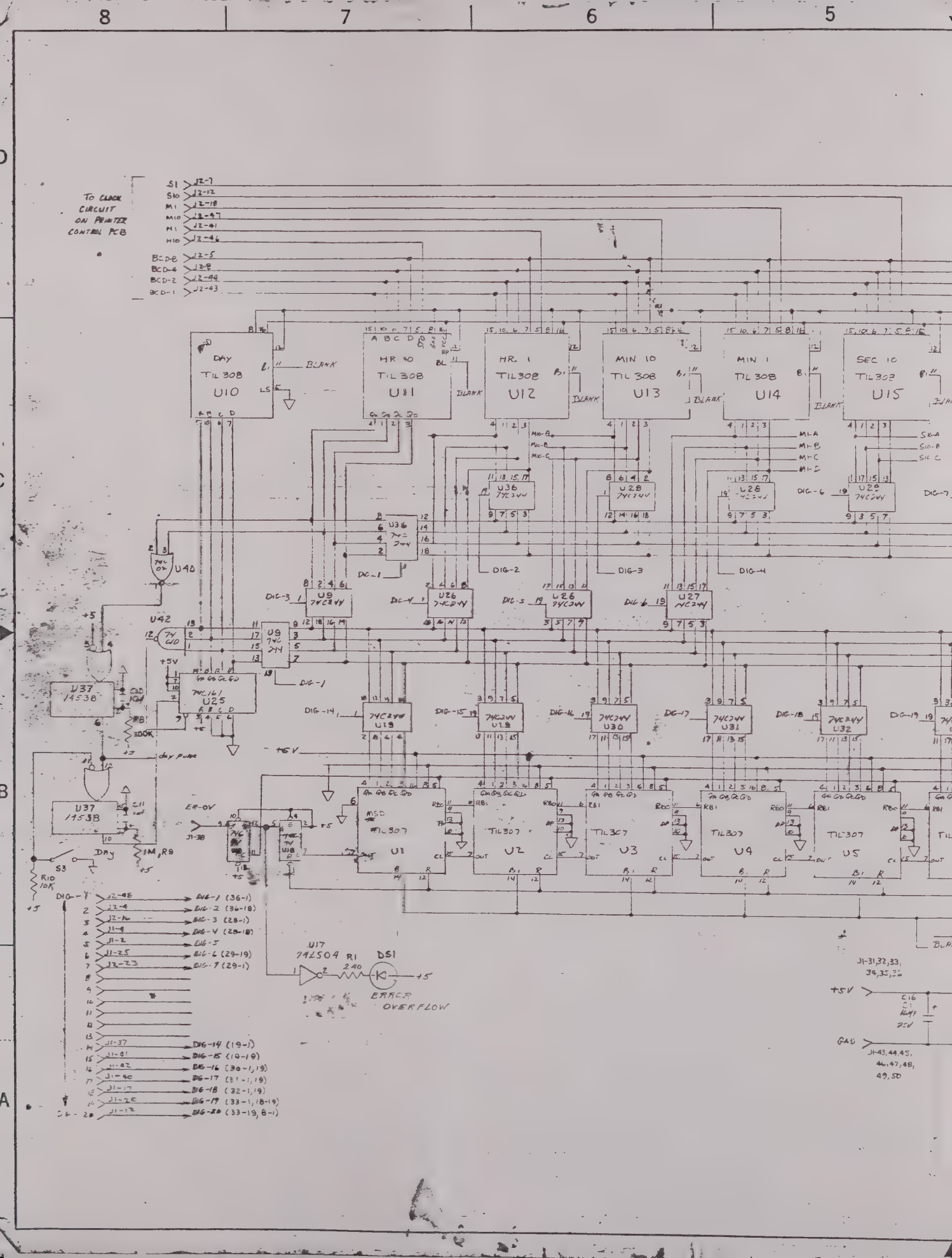
4 | 3 | 2 | 1

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		

TO/MANUAL
RINT

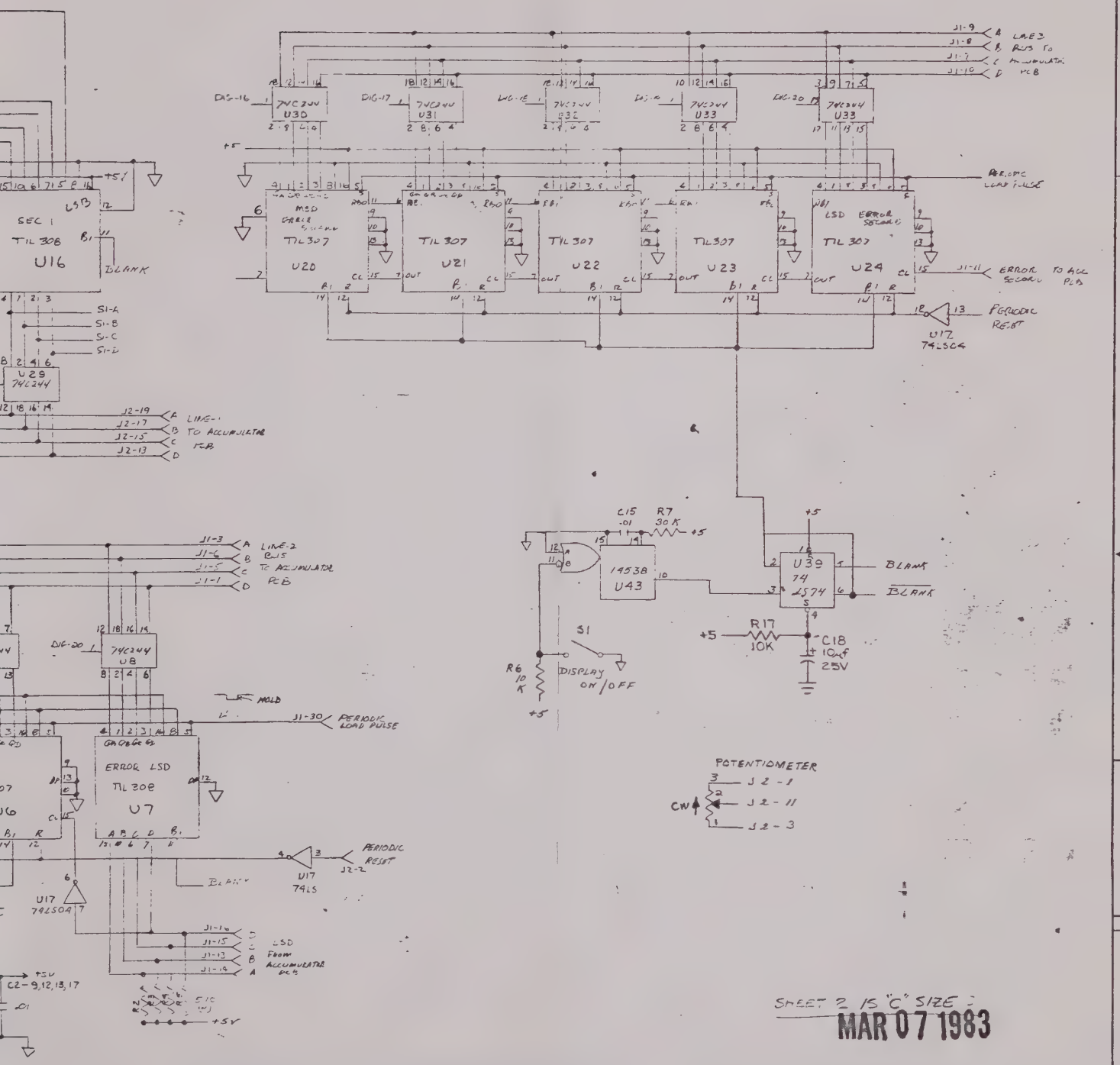
MAR 07 1983

WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:	CONTR NO.	tau-tron inc Chelmsford, MA. 01824
		DR K. Beaupre 2-29-80	DRAWING TITLE
		CHK B. Udd 3-28-80	PRINTER CONTROL SCHEMATIC
		APPD K. Beaupre 8-29-80	
55,000		APPROVED	SIZE D / CODE IDENT NO. / DRAWING NO. D-66004 / REV E
NEXT ASSY / USED ON		BY DIRECTION OF	SCALE / SHEET 2 OF 2
APPLICATION			


TO CLOCK CIRCUIT ON PRINTER CONTROL PCB
S1
S10
M1
M10
H1
H10
BCD-8
BCD-4
BCD-2
BCD-1
DAY TIL308 U10
HR 10 TIL308 U11
HR 1 TIL308 U12
MIN 10 TIL308 U13
MIN 1 TIL308 U14
SEC 10 TIL308 U15
BLANK
U40
U42
U37 14538
U25
DIG-1
DIG-2
DIG-3
DIG-4
DIG-5
DIG-6
DIG-7
DIG-14
DIG-15
DIG-16
DIG-17
DIG-18
DIG-19
day pulse
+5V
+5
U1
U2
U3
U4
U5
U17 74LS04
R1
240
DS1
ERROR OVERFLOW
S3
R10 10K
1M, R9
J1-31,32,33, 34,35,36
C16
.1 MF
GND
J1-43,44,45, 46,47,48, 49,50

4	3	2	1

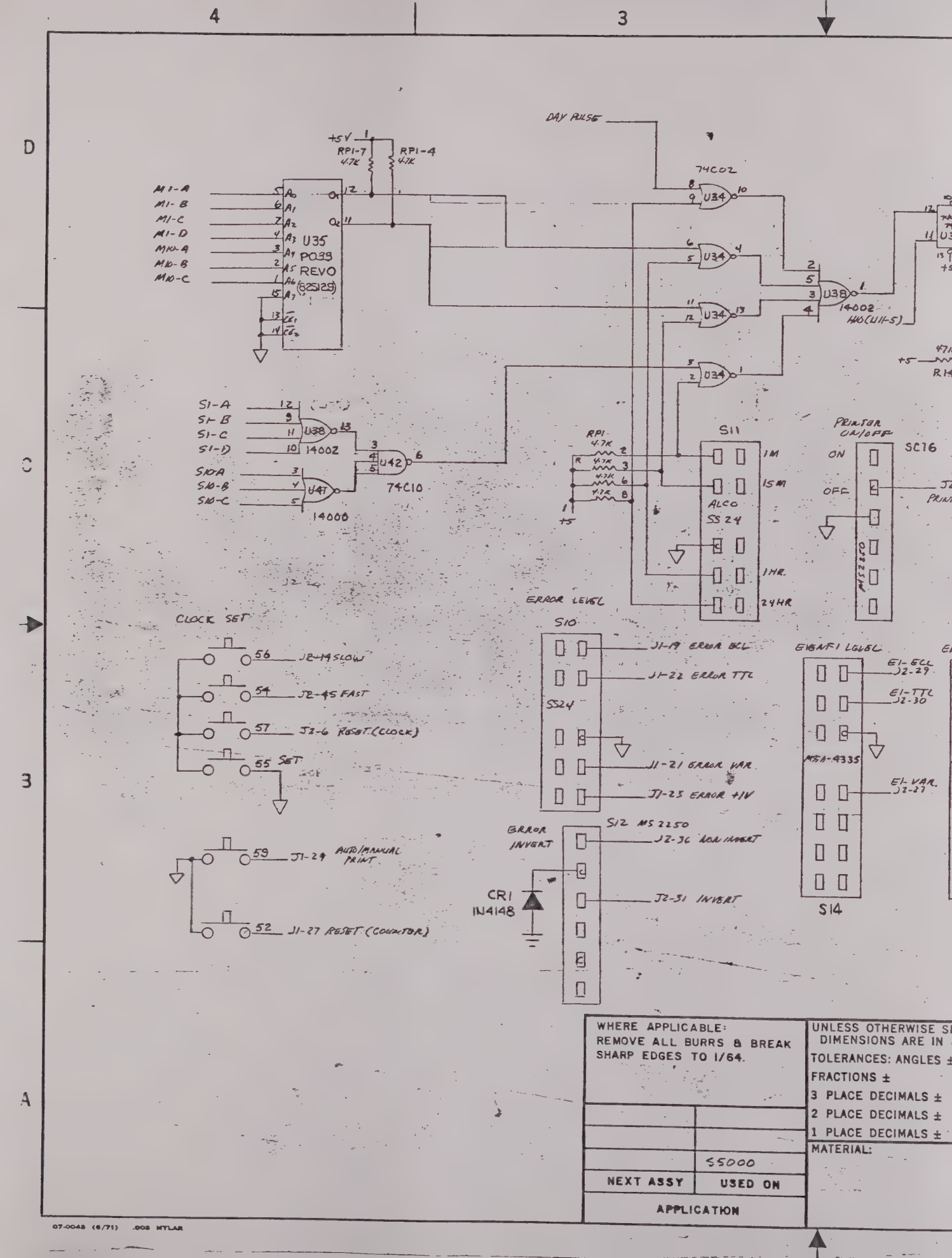
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVE
	1	REVISED, C.S 9-8-80	9-19-80	
	A	REVISD PER DCN00777 K.T. 12-15-80	12-13-80	BAC
	B	REV PER DCN 00942 KT.	3-3-81	
	C	REV PER ECO#00941 CS 6-17-81	6-18-81	
	D	REV PER ECO#01014 CS 10-19-81	10-19-81	



SHEET 2 IS "C" SIZE

MAR 07 1983

WHERE APPLICABLE REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:	CONTR NO.	tau-tron inc Chelmsford, ma 01824		
		DR K. LOMAINE	DRAWING TITLE S6000 PRINTING ERROR ANALYZER FRONT PANEL SCHEMATIC		
		CHK B. Cooper 9-19-80			
		APPD K. Lomaine 12/30/80			
NEXT ASSY / USED ON APPLICATION		APPROVED BY DIRECTION OF	SIZE D	CODE IDENT NO.	DRAWING NO. TDJ-66010 REV F
			SCALE		SHEET OF

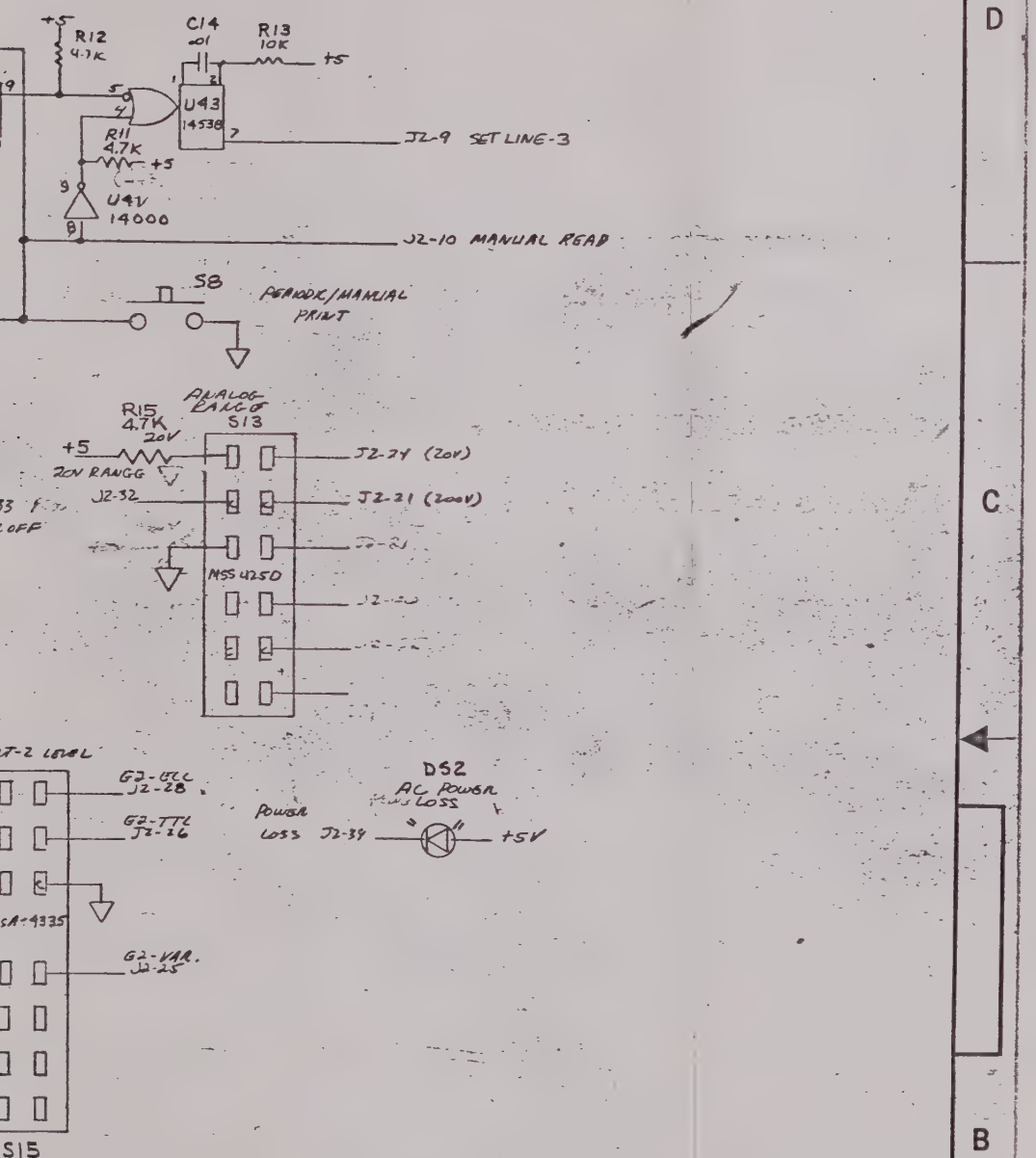


WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SI DIMENSIONS ARE IN TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:
	S5000
NEXT ASSY	USED ON
APPLICATION	

2 1

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED

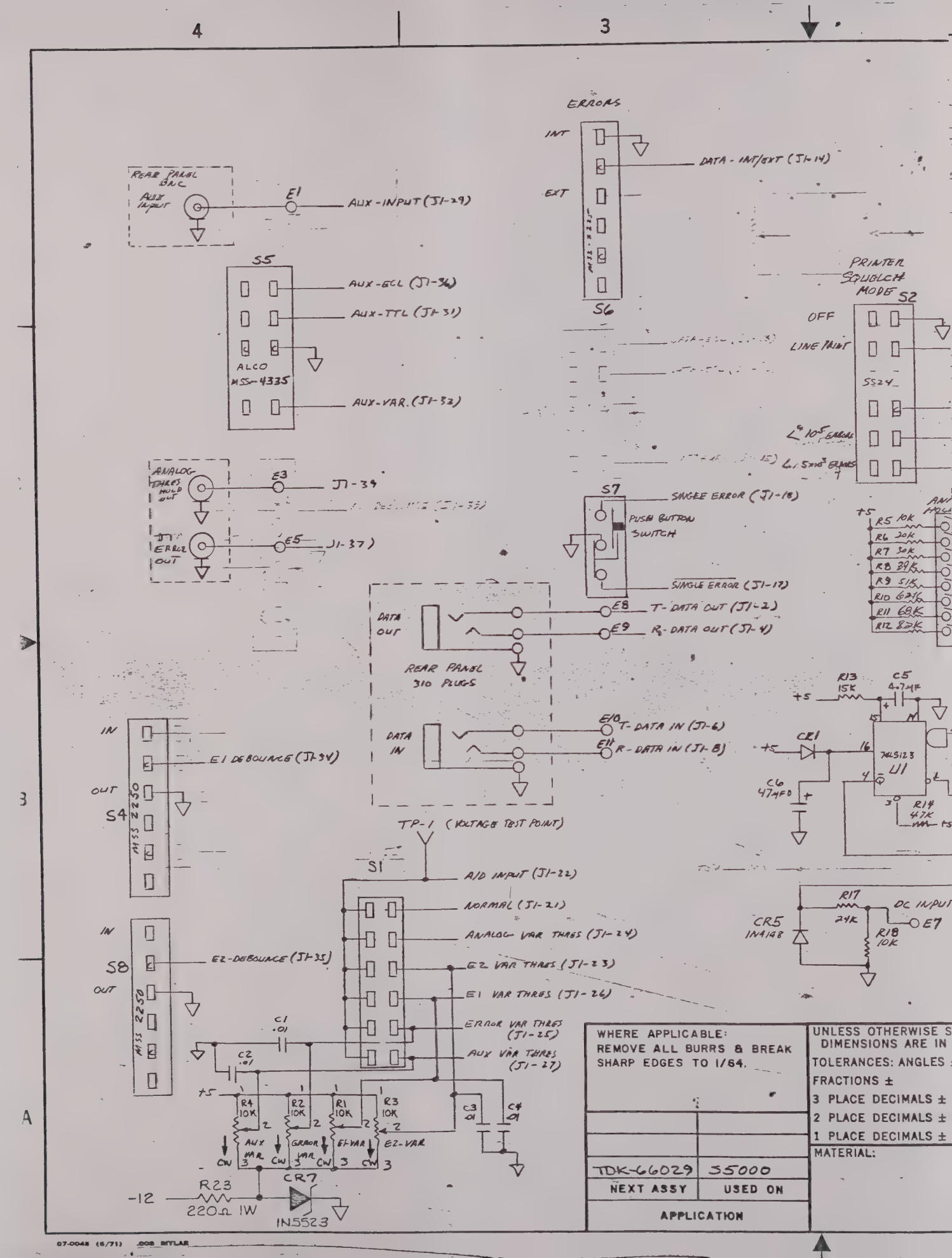
SEE SH.1



SHT/1 IS A "D" SIZE

CIFIED CHES	CONTR NO.	tau-tron INC Chelmsford, Mass. 01824	
	DR K. Beaupre		
	CHK R Cooper	9-18-80	
	APPD	DRAWING TITLE: 55000 FRONT PANEL PCB SCHEMATIC	
	APPROVED	SIZE: C	CODE IDENT NO.	DRAWING NO.: TEJ-66.010	REV: D
	BY DIRECTION OF	SCALE: 55000	SHEET 2 OF 2		

MAR 07 1983


4
3
ERRORS
INT
EXT
DATA - INT/EXT (J1-14)
REAR PANEL BNC
AUX INPUT
E1
AUX-INPUT (J1-29)
S5
AUX-ECL (J1-34)
AUX-TTL (J1-31)
ALCO MSS-4335
AUX-VAR. (J1-32)
PRINTER SQUELCH MODE
S2
OFF
LINE NOISE
S524
ANALOG THRES HOLD OUT
E3
J1-39
J1 ERROR OUT
E5
J1-37)
S7
SINGEE ERROR (J1-16)
PUSH BUTTON SWITCH
SINGLE ERROR (J1-17)
R5 10K
R6 30K
R7 30K
R8 39K
R9 51K
R10 62K
R11 68K
R12 82K
DATA OUT
E8
T-DATA OUT (J1-2)
E9
R-DATA OUT (J1-4)
REAR PANEL 310 PLUGS
DATA IN
E10
T-DATA IN (J1-6)
E11
R-DATA IN (J1-8)
R13 15K
C5 4.7MF
+5
CR1
74LS123
U1
C6 47MFD
R14 47K
IN
E1 DEBOUNCE (J1-34)
OUT
S4
MSS 2230
TP-1 (VOLTAGE TEST POINT)
S1
A/D INPUT (J1-22)
NORMAL (J1-21)
ANALOG VAR THRES (J1-24)
E2 VAR THRES (J1-23)
E1 VAR THRES (J1-26)
ERROR VAR THRES (J1-25)
AUX VAR THRES (J1-27)
R17 24K
DC INPUT
E7
CR5 IN4148
R18 10K
IN
S8
E2-DEBOUNCE (J1-35)
OUT
MSS 2250
C1 .01
C2 .01
R4 10K
R2 10K
R1 10K
R3 10K
C3 .01
C4 .01
AUX VAR
ERROR VAR
E1-VAR
E2-VAR
CW
-12
R23 220Ω 1W
CR7 IN5523
WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.
UNLESS OTHERWISE S
DIMENSIONS ARE IN
TOLERANCES: ANGLES
FRACTIONS ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±
MATERIAL:
TDK-66029
55000
NEXT ASSY
USED ON
APPLICATION
07-0048 (6/71) .008 MYLAR

2 1

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	REVISED & RELEASED PER DCN00780 } J. 11-6-80	12-18-80	BAC KAB
	B	REV PER DCN00850 & T-2260	2-26-81	BAC KAB

D

J1 / TO J3 MOTHER BOARD			
T-DATA OUT	2	1	GND
R-DATA OUT	4	3	GND
T DATA IN	6	5	GND
R DATA IN	8	7	GND
AUTO OFF	10	9	GND
OVERFLOW	12	11	LOAD PULSE
DATA-BIT/BIT	14	13	
	16	15	PARITY
SINGLE CABLE	18	17	SINGLE VAR-A
GND	20	19	
A/D INPUT	22	21	ANALOG NORMAL
ANALOG VAR THRES	24	23	G2 - VAR THRES
G1 - VAR THRES	26	25	GRAM-VAR THRES
GND	28	27	AUX-VAR THRES
GND	30	29	AUX INPUT
AUX-VAR	32	31	AUX-TTL
G1-DEBOUNCE	34	33	AUX DEBOUNCE
AUX-ECL	36	35	G2-DEBOUNCE
HOLD TIME	38	37	GRAM OUT
AC FAIL LED	40	39	THRESHOLD
PB AND	42	41	RESET
-5V	44	43	-5V
+5	46	45	+5
+5	48	47	+5
GND	50	49	GND

(J1-11) LOAD PULSE

(J1-10) AUTO OFF

(J1-12) OVER FLOW

(J1-15) PARITY

HOLD TIME

J1-38 HOLD TIME

S3

NOTE: J1 IS A FLAT CABLE RECEPTACLE.

C

R16 1K

CR2 IN4148

AC INPUT

E12

CR3 IN5229

C7 47MFD

R19 4.7K

+5

74LS74

U2

R21 240

AC FAIL LED (J1-40)

R20 1K

CR4 IN4148

C8 10MFD

CR6 IN4148

RESET (J1-41)

R22 4.7K

+5

B

A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CONTR NO.		
	DR K. BEAUDRY	6/4/80	
	CHK A. MONTERIO	8/26/80	
	APPD K. Beaupre	8/26/80	
	APPROVED		
	BY DIRECTION OF		

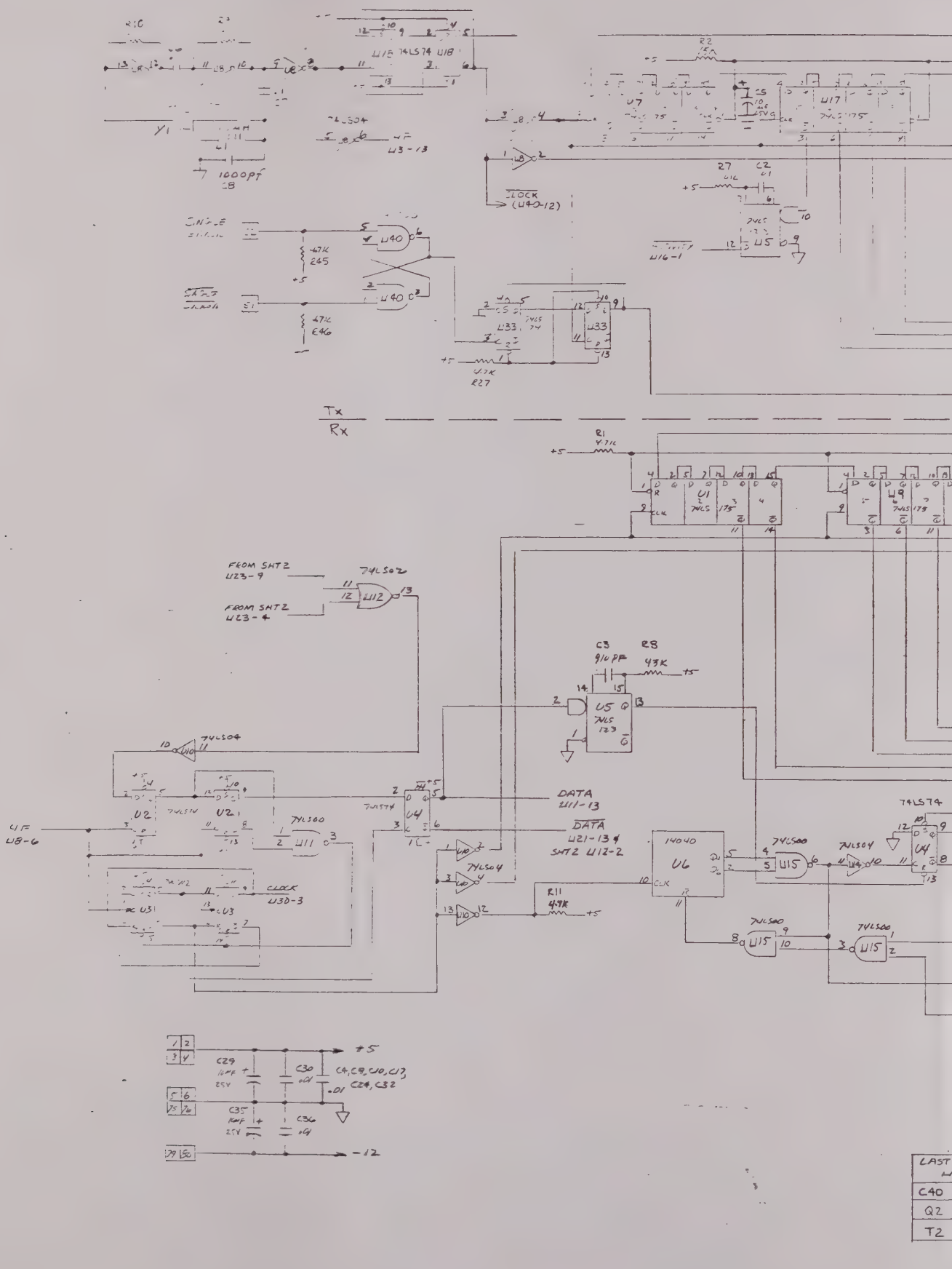
tau-tron INC Chelmsford, Ma. 01824

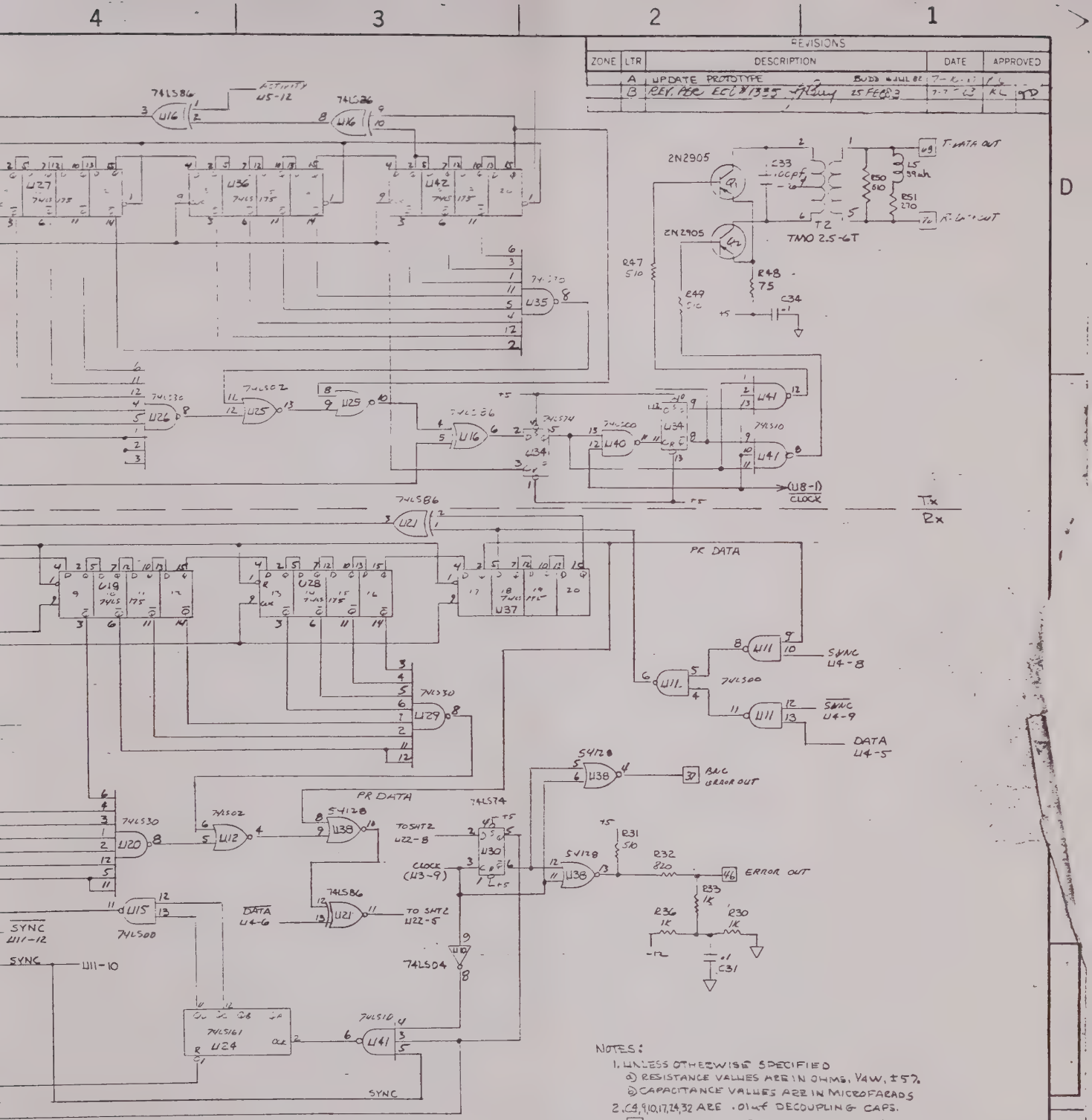
DRAWING TITLE

REAR PANEL PCB SCHEMATIC

SIZE	CODE IDENT NO.	DRAWING NO.	REV
C		TCJ-66027	B
SCALE	S5000	SHEET 1 OF 1	

MAR 07 1983


Y1
1000pf
C8
74LS04
U3-13
U15 74LS74 U18
CLOCK (U40-12)
U7
U17
74LS175
R2
C1
C2
27
U5
U16-1
U40
47K R45
47K R46
U33
74LS74
U7K R27
Tx
Rx
R1 4.7K
U1
U9
FROM SHT2 U23-9
FROM SHT2 U23-4
74LS02
U12
C3 910PF
R8 43K
U5 74LS123
74LS04
U10
U2
74LS74
74LS00
U11
DATA U11-13
DATA U21-13 & SHT2 U12-2
U4
CLIF U8-6
CLOCK U30-3
U3
R11 4.7K
14040
U6
U15
C29 10MF 25V
C30 .01
C4,C9,U0,U13 C24,C32
C35 10MF 25V
C36 .1
+5
-12
LAST
C40
Q2
T2



MAR 07 1983

CF. DES.	
R3	L5
S1	S1
4Z	Y1

WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES: ANGLES ±
FRACTIONS ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±
MATERIAL:

D-66087	55000 PCS/YR
NEXT ASSY	USED ON
APPLICATION	

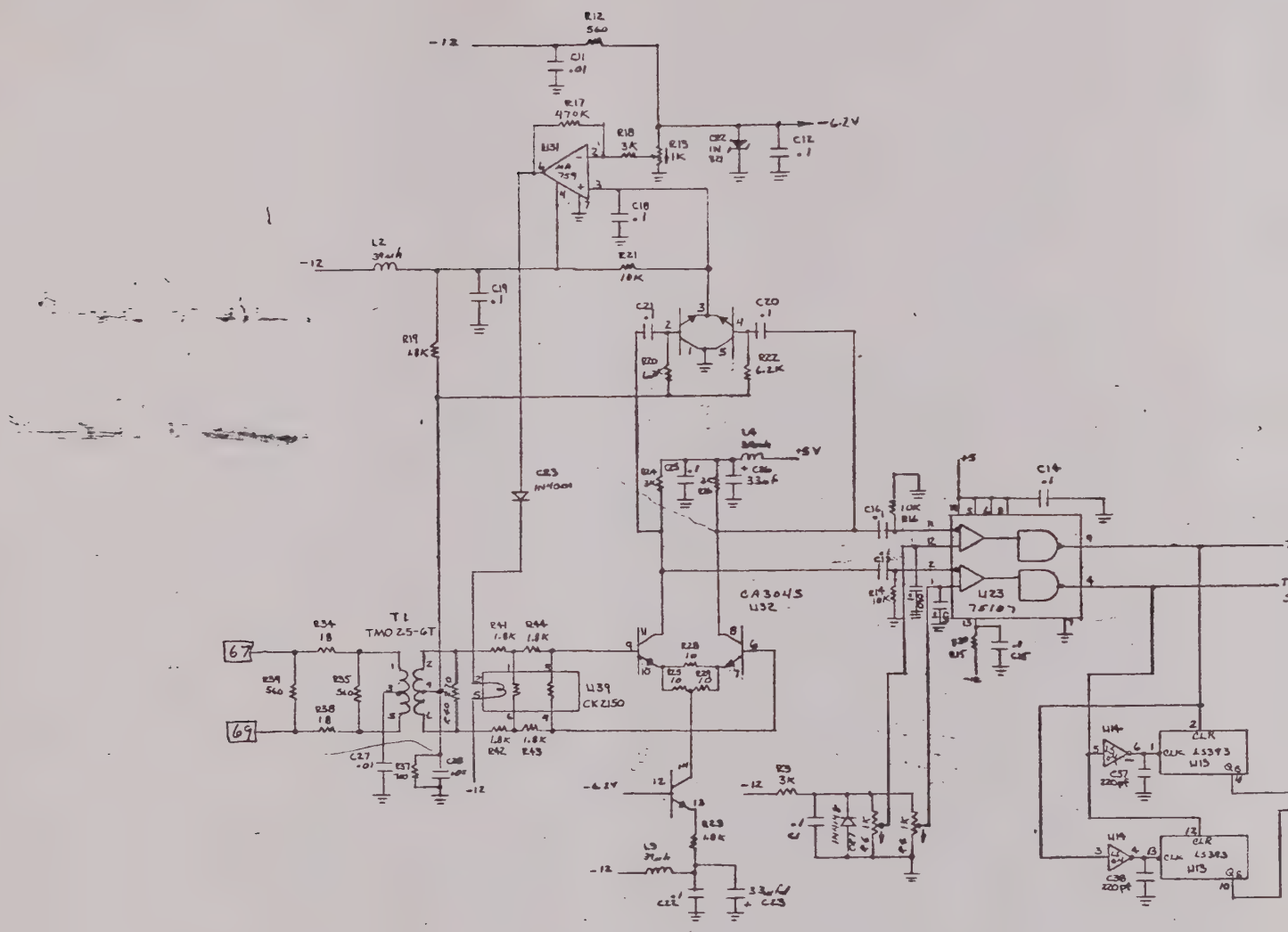
CONTR NO.

DR BUDD	4-1-82
CHK RJL	4-14-82
APPD	
APPROVED	
BY DIRECTION OF	

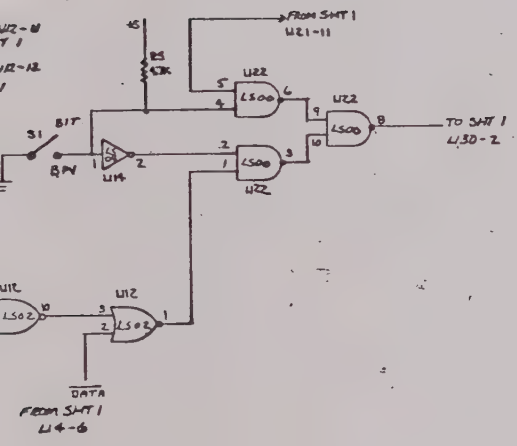
tau-tron INC Chelmsford, Mass. 01824

DRAWING TITLE
SCHEMATIC DIAGRAM
TI GENERATOR

SIZE	CODE IDENT NO.	DRAWING NO.	REV
D		D-66085	B
SCALE 2/1	55000 PCS/YR	SHEET 1 OF 2	


-12
R12 560
C11 .01
R17 470K
R18 3K
R13 1K
CR2 IN 821
C12 .1
-6.2V
U131 μA 739
C18 .1
L2 39μH
R21 10K
C19 .1
R19 18K
C21 .1
C20 .1
R20
R22 6.2K
L4 39μH
+5V
CR3 IN4004
C25 .1
C26 33μF
R24 3K
CA3045 U32
T1 TM025-6T
R34 18
R39 560
R35 560
R38 18
R41 1.8K
R44 1.8K
R28 10
R25 10
R26 10
U39 CK2150
R42 1.8K
R43 1.8K
C27 .01
R37 360
C28 .01
L3 39μH
R23 4.0K
C22 .1
C23 33μF
R29 3K
C1 .1
C14 .1
C15 .01
R16 10K
C16 .01
R14 10K
U23 75107
C24 .01
C17 .01
U14 LS393 U15
C37 220pF
U15 LS393 U13
C38 220pF
67
69

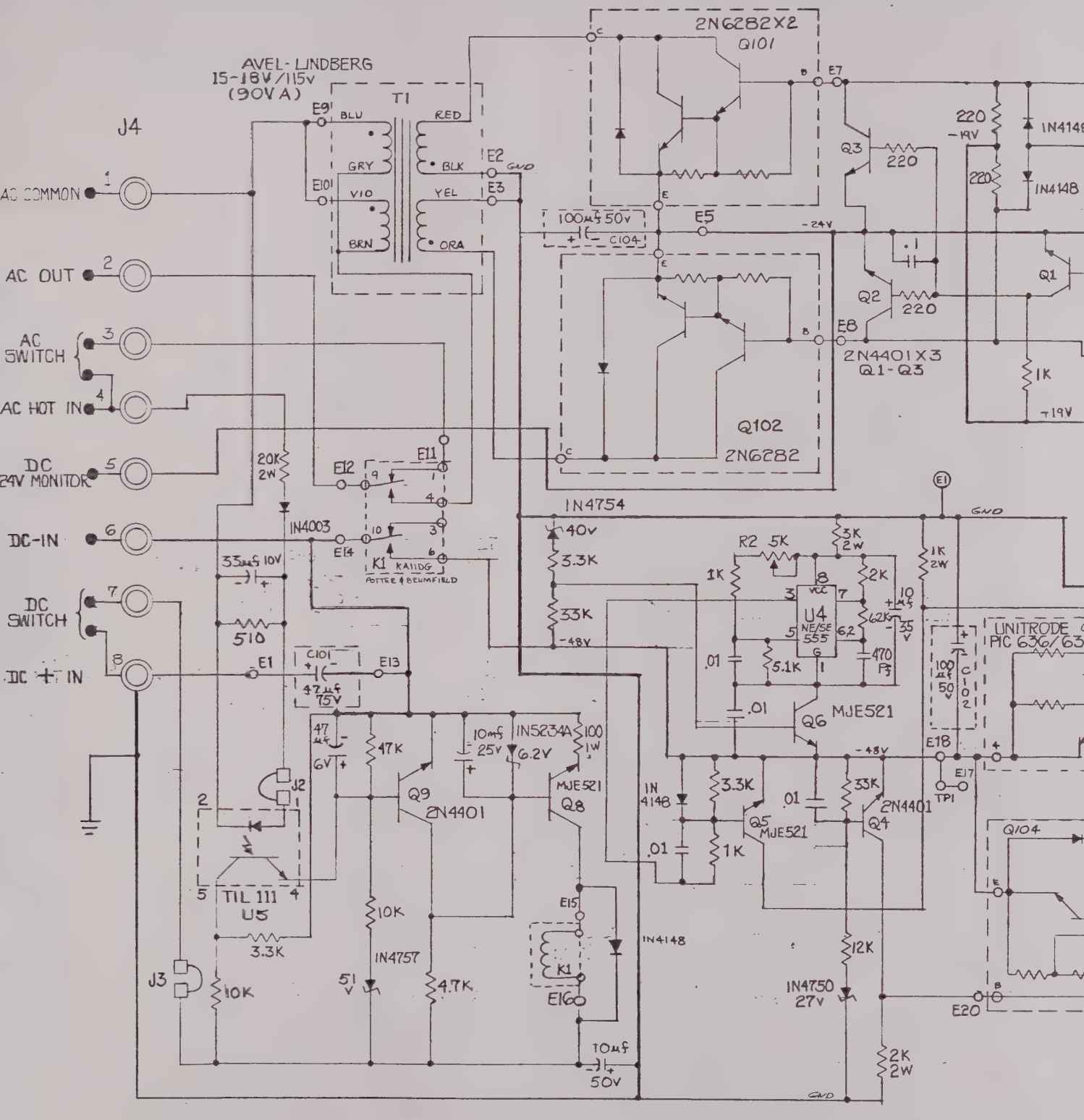
SEE SHT 1



MAR 07 1983

WHERE APPLICABLE REMOVE ALL BURRS & SHARP EDGES TO .064	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CONTR NO		tau-tron inc Chelmsford MA 01824	
	TOLERANCES ANGLES ±	DR Bodd	4-1-82		
	FRACTIONS ±	CHK RJL	4-14-82	DRAWING TITLE SCHEMATIC DIAGRAM TI GENERATOR.	
	3 PLACE DECIMALS ±	APPD			
	2 PLACE DECIMALS ±				
	1 PLACE DECIMALS ±				
D-66087 / 55000 RX	MATERIAL	APPROVED		SIZE D / CODE IDENT NO / DRAWING NO D-66085	REV B
NEXT ASSY / USED ON		BY DIRECTION OF		SCALE NONE / 55000 RX	SHEET 2 OF 2
APPLICATION					

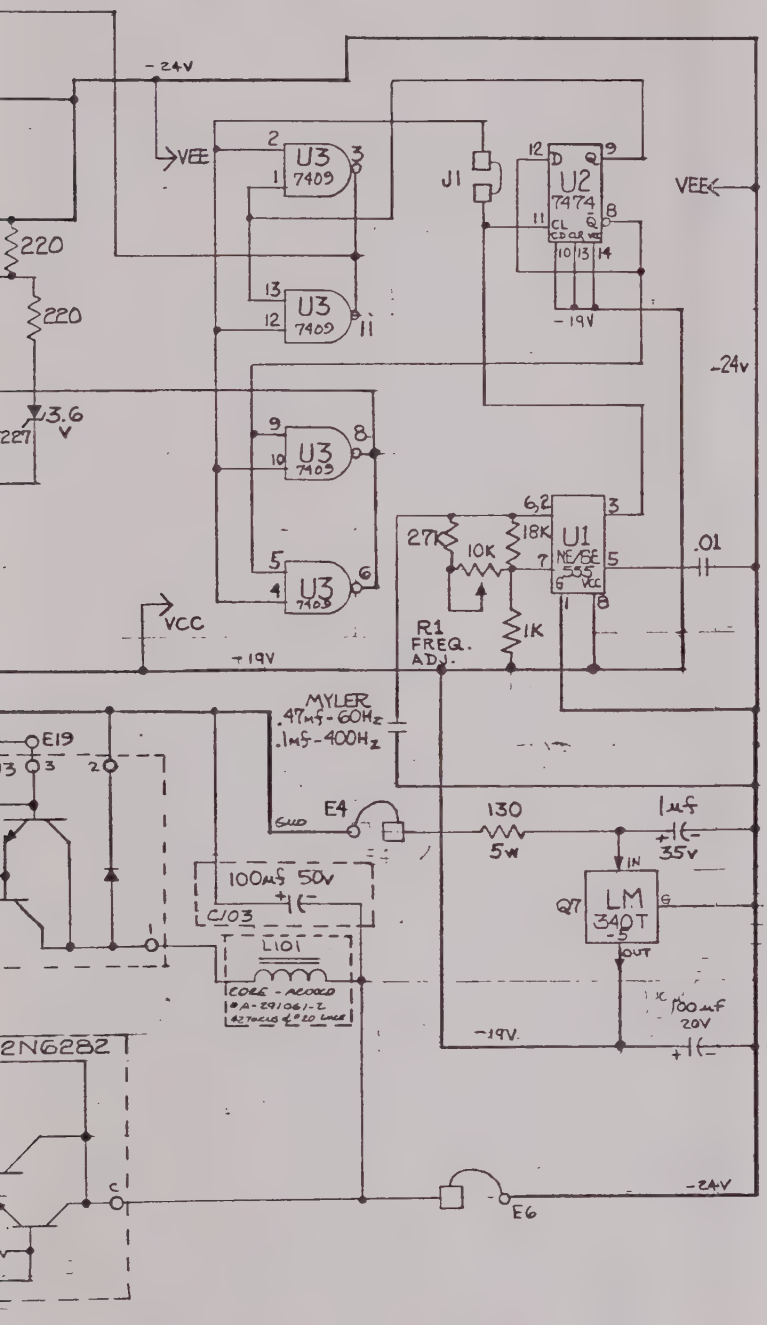
D-66085



NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   A. RESISTANCE VALUES ARE IN OHMS, ± 5%, 1/4 W.
   B. CAPACITANCE VALUES ARE IN MICROFARADS.
2. O DENOTES POST CONNECTORS (E1-E20).
3. COMPONENTS WITHIN DASHED AREAS ARE MOUNTED ON THE CHASSIS.

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	1	REVISED & REDRAWN JA° 26JAN81	2-6-81	[illegible] UC
	2	UPDATED TO AGREE WITH WIRING DIA. [illegible] 3-19-81	3-19-81	A.A.M.
	3	CHG C102 & C103 FROM 75V TO 50V TFC	5/6/81	A.A.M.
	A	REV PER ECO-01092 RMurray 2-24-82	3-5-82	[illegible]



MAR 07 1983

TDK-57222	55000
TDK-57222	55200 D
NEXT ASSY	USED ON
APPLICATION	

WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES: ANGLES ±
FRACTIONS ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±
MATERIAL:

CONTR NO.

DR	[illegible]	21JAN81
CHK	B Corpis	2-6-81
APPD	[illegible]	[illegible]

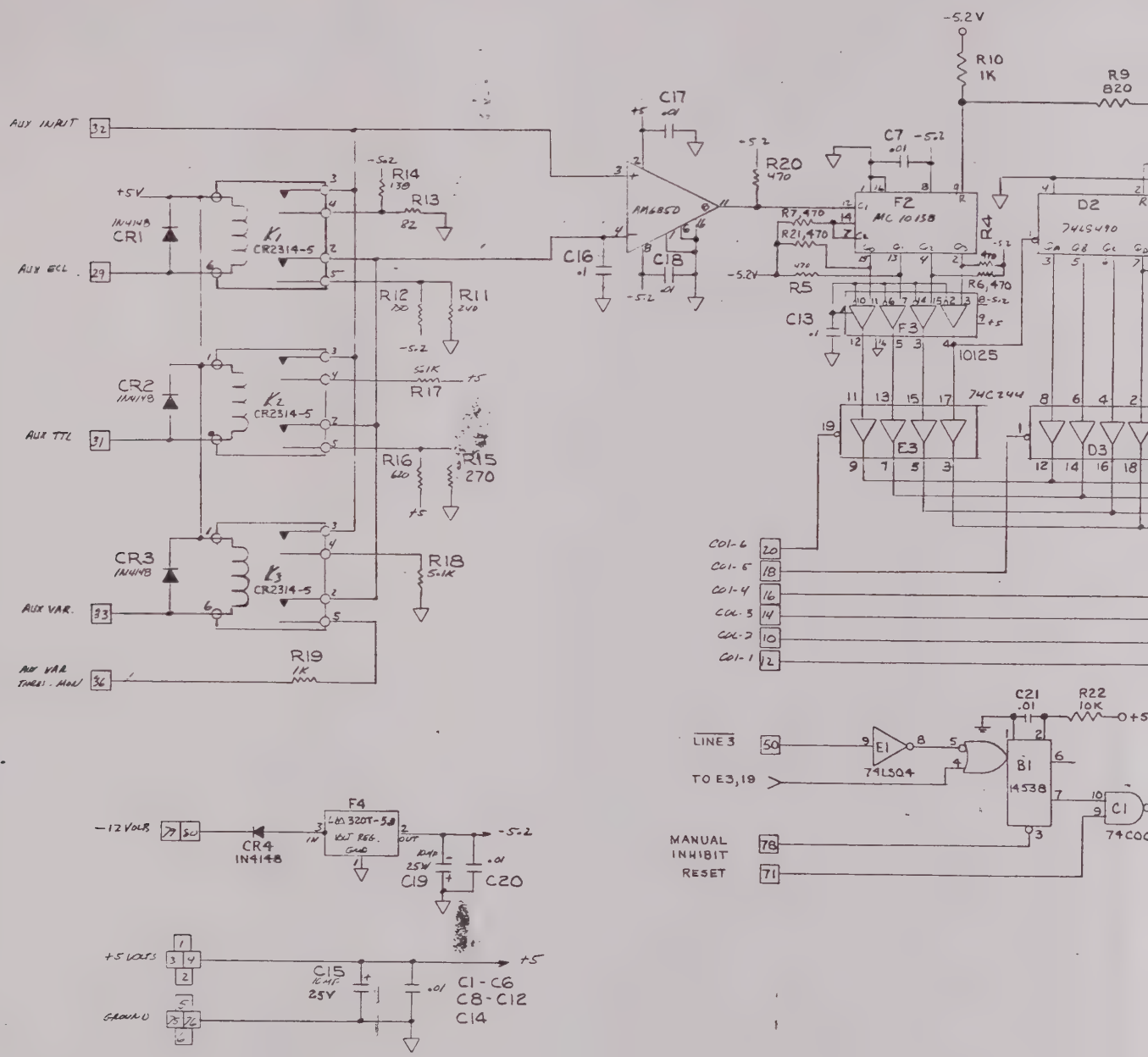
APPROVED
BY DIRECTION OF

tau-tron inc
Chelmsford, Mass. 01824

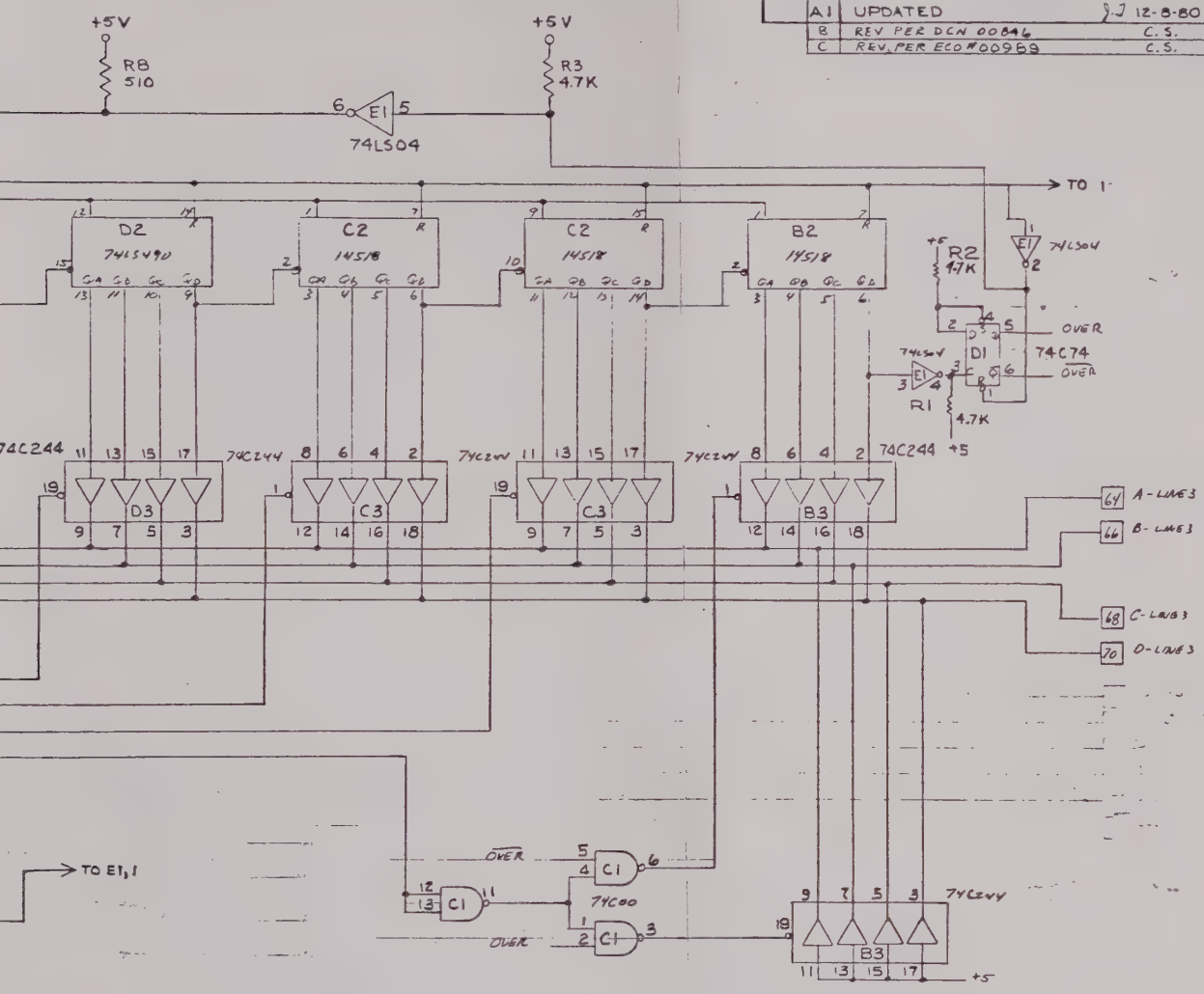
DRAWING TITLE
DC/AC CONVERTER SCHEMATIC DIAGRAM

SIZE	CODE IDENT NO.	DRAWING NO.	REV
D		TDJ-57220	A

SCALE [illegible] SHEET 1 OF 1


AUX INPUT
32
+5V
IN4148
CR1
K1
CR2314-5
AUX ECL
29
-5.2
R14
130
R13
82
R12
200
R11
240
CR2
IN4148
K2
CR2314-5
AUX TTL
31
5.1K
R17
+5
R16
680
R15
270
CR3
IN4148
K3
CR2314-5
AUX VAR.
33
R18
5.1K
AUX VAR THRES. MON
36
R19
1K
C17
.01
C16
.1
C18
.01
AM6650
R20
470
R7,470
R21,470
R5
470
R6,470
C13
.1
F2
MC 10138
F3
10125
D2
74LS490
74C244
E3
D3
C7
.01
R10
1K
R9
820
C01-6
C01-5
C01-4
C01-3
C01-2
C01-1
20
18
16
14
10
12
LINE 3
50
TO E3,19
E1
74LS04
B1
14538
C1
74C00
C21
.01
R22
10K
MANUAL INHIBIT
78
RESET
71
-12 VOLTS
50
CR4
IN4148
F4
LM320T-5.0
5 VOLT REG.
GND
IN
OUT
-5.2
25V
C19
C20
+5 VOLTS
GROUND
C15
16 MFD
25V
C1-C6
C8-C12
C14

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A1	UPDATED J.J 12-8-80	12-8-80	
	B	REV PER DCN 00846 C.S.	2-9-81	
	C	REV. PER ECO #00959 C.S.	9-8-81	



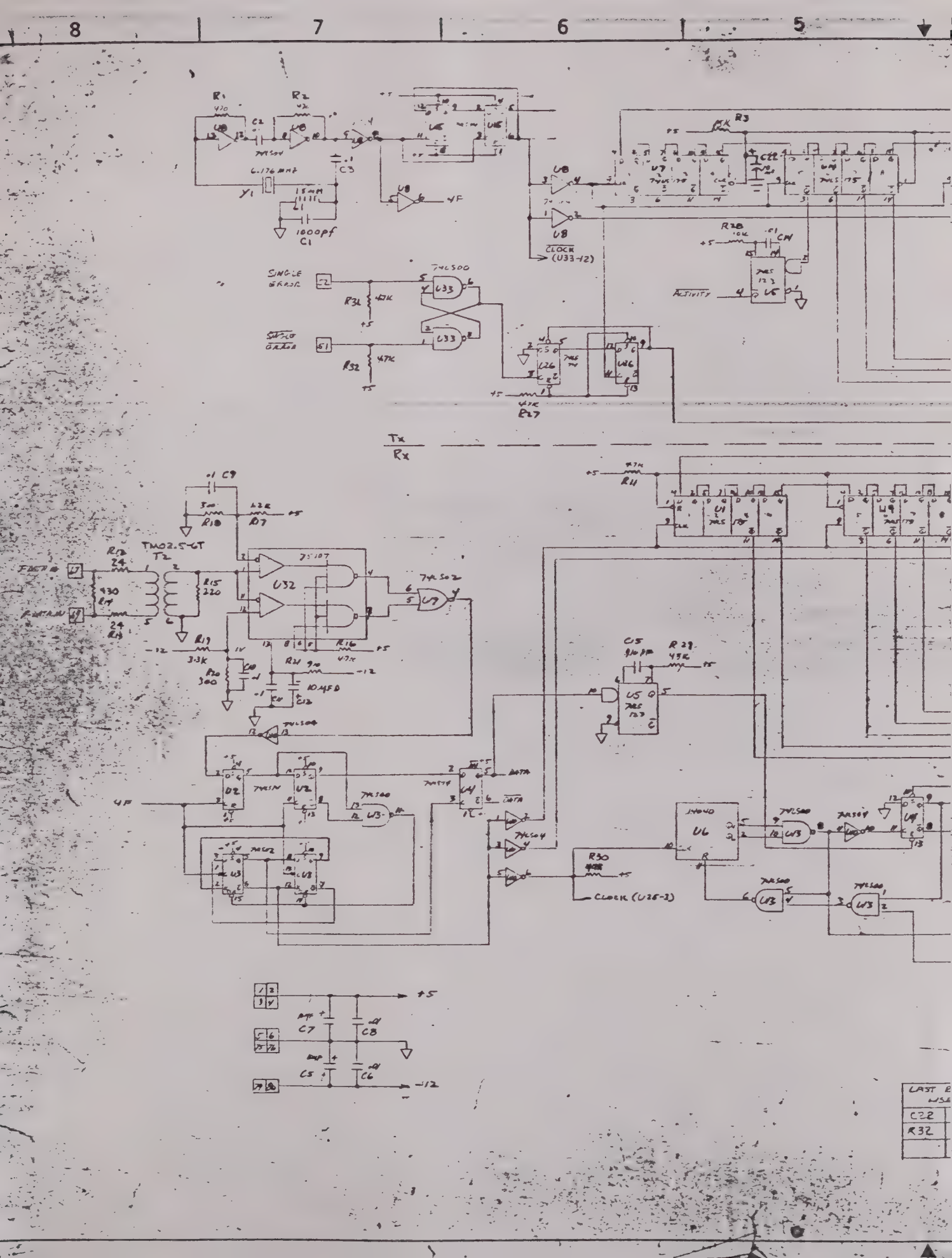
NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   A. RESISTOR VALUES ARE IN OHMS, ±5%, 1/4W.
   B. CAPACITOR VALUES ARE IN MICROFARADS.
2. ☐ DENOTES EDGE CONNECTOR PIN NUMBER OR LETTER.

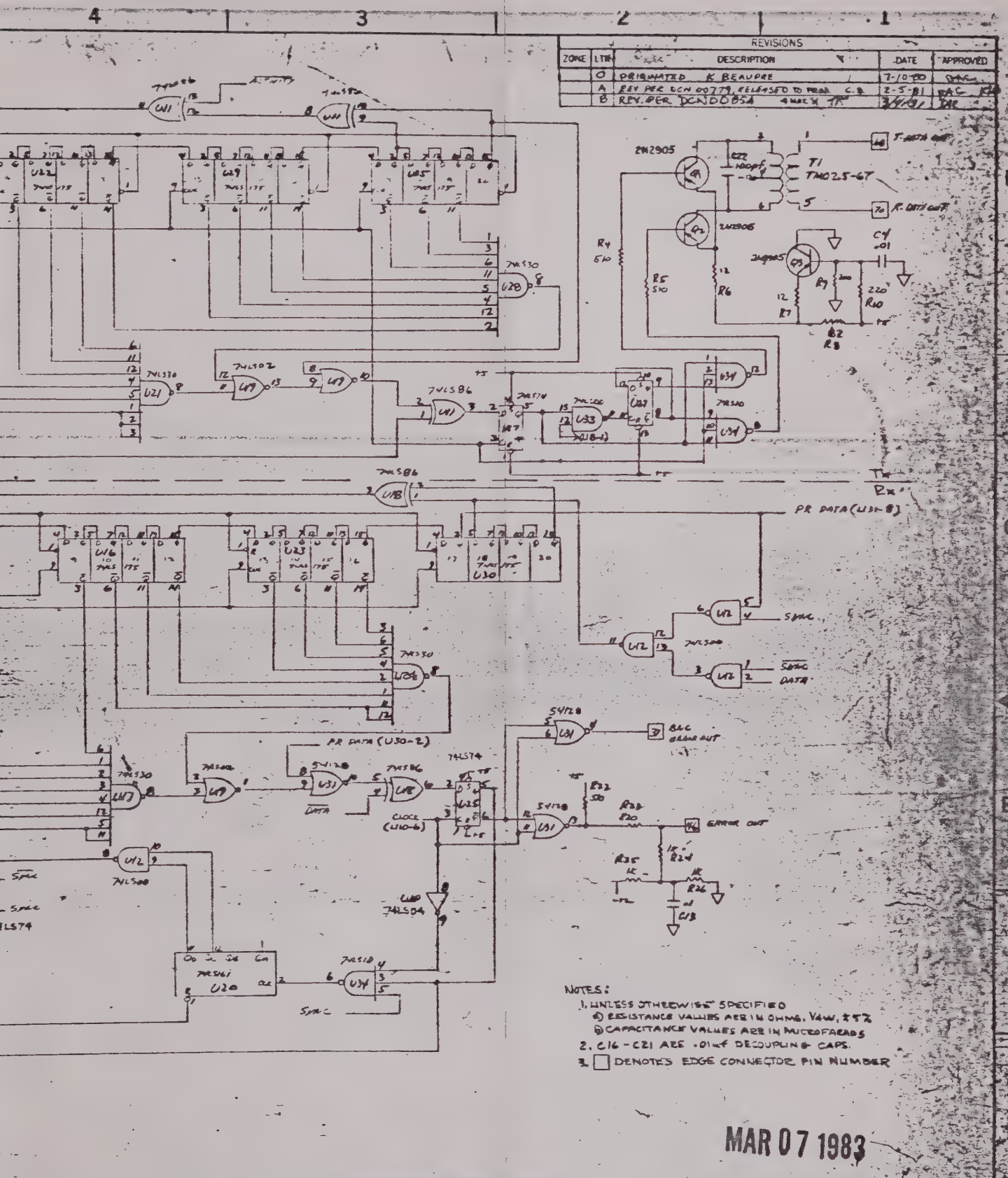
MAR 07 1983

WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:	CONTR NO.		tau-tron INC Chelmsford, Mass. 01824	
		DR K. Beaupre	7/15/80	DRAWING TITLE: S5000 AUX INTERFACE	
		CHK B. Cooper	12/8/80		
		APPD K. Kamps	12/8/80		
TDK-66062 / 55000		APPROVED		SIZE: D	CODE IDENT NO.
NEXT ASSY / USED ON		BY DIRECTION OF		DRAWING NO.: TDJ-66060	REV: C
APPLICATION				SCALE: 55000	SHEET 1 OF 1

TDJ-66060



LAST B USE
C22
R32



NOTES:
1. UNLESS OTHERWISE SPECIFIED
   a) RESISTANCE VALUES ARE IN OHMS, 1/4W, ±5%
   b) CAPACITANCE VALUES ARE IN MICROFARADS
2. C16 - C21 ARE .01uF DECOUPLING CAPS.
3. ☐ DENOTES EDGE CONNECTOR PIN NUMBER

MAR 07 1983

WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:
TDK-66032 / 55000	
NEXT ASSY / USED ON	
APPLICATION	

CONTR NO.

DR	K. Beaupre	7/10/80
CHK	B. Cooper	8/13/80
APPD	K. Beaupre	9/15/80

APPROVED

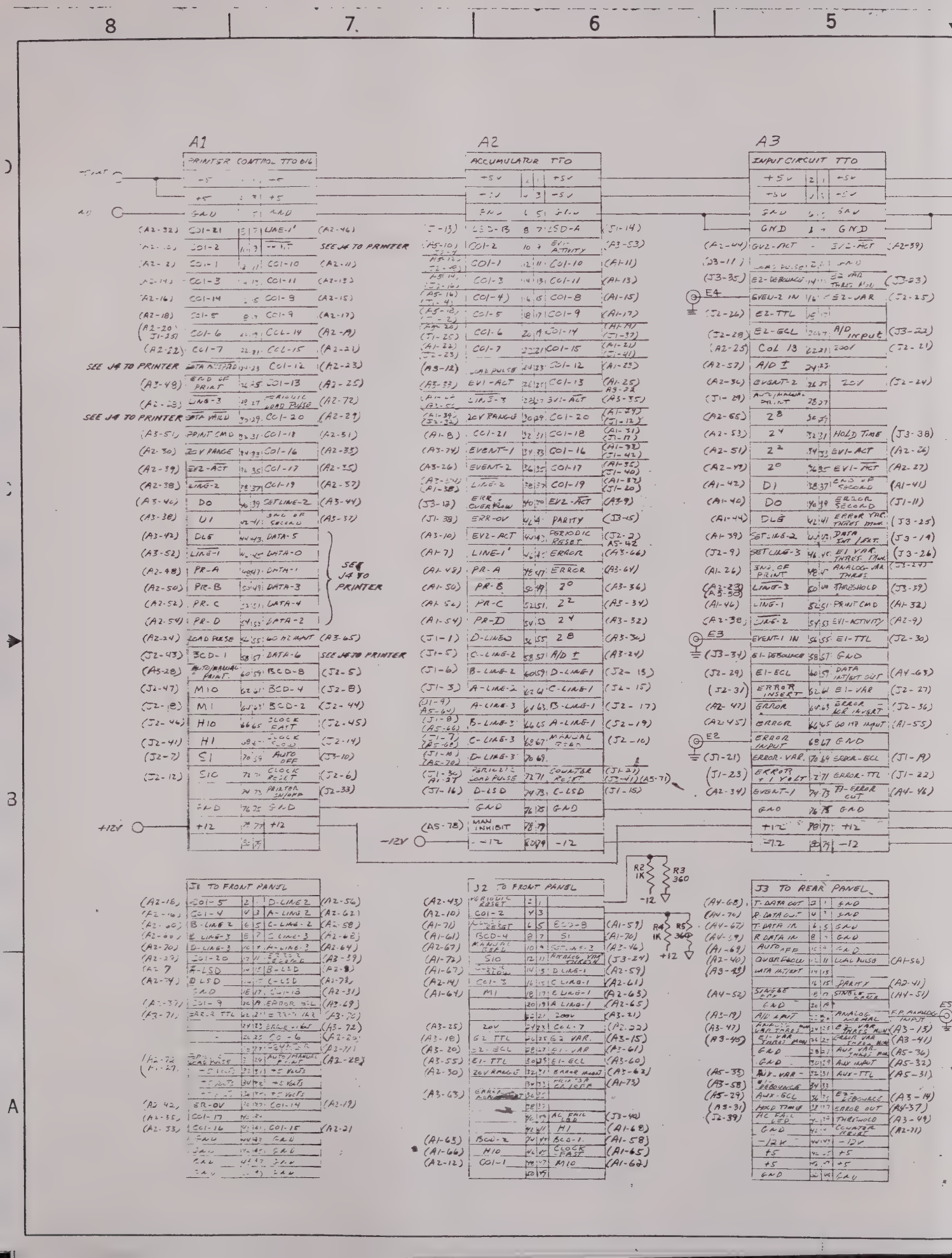
BY DIRECTION OF

tau-tron inc. Chelmsford, ma. 01824

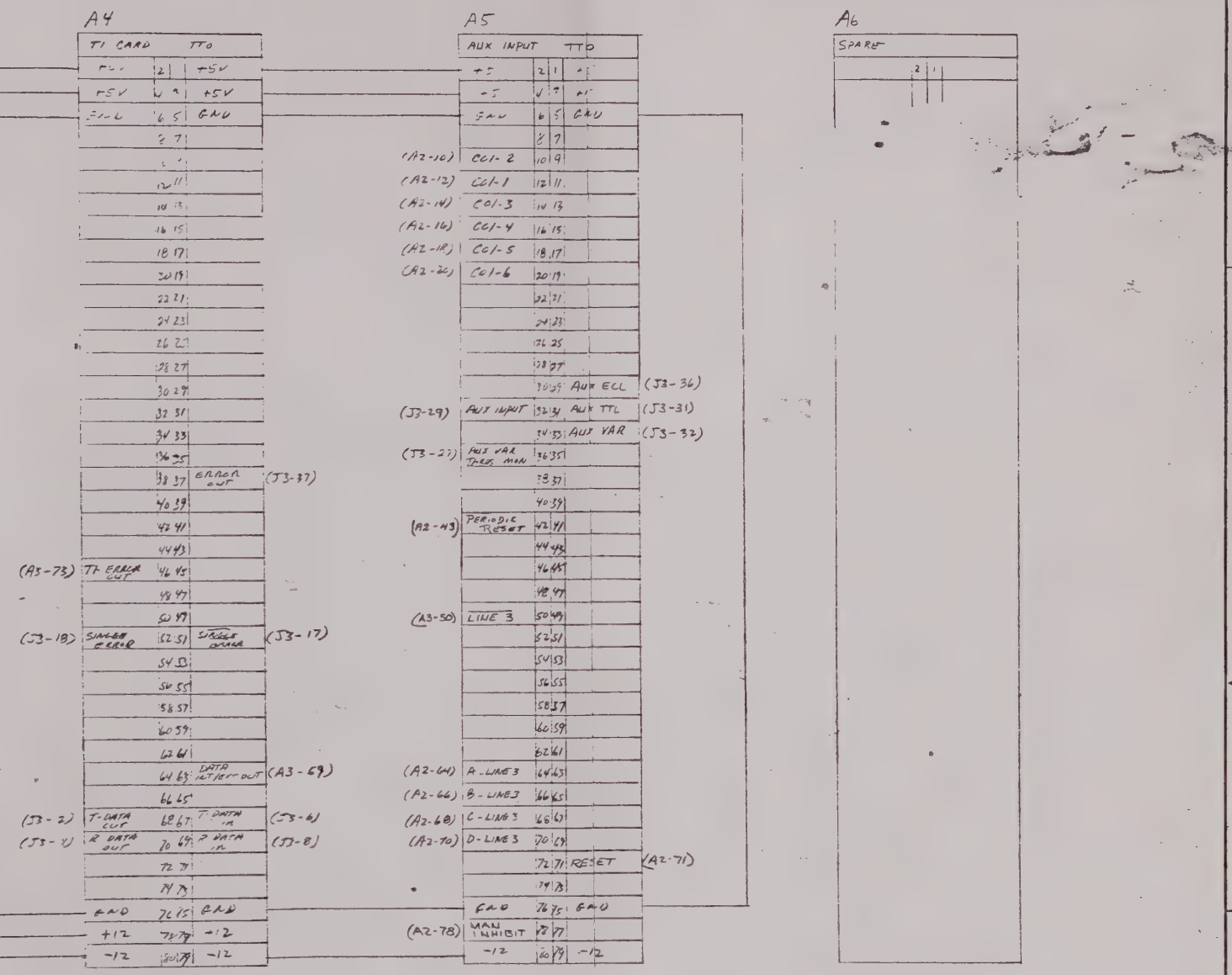
DRAWING TITLE: 55000, TI GENERATOR/RECEIVER SCHEMATIC DIAGRAM

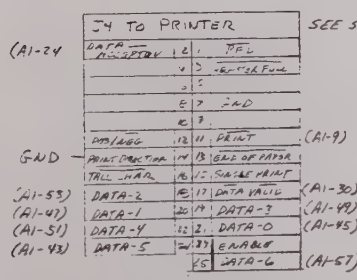
SIZE	CODE IDENT NO.	DRAWING NO.	REV
D	1	TDP-66030	B

SCALE - | 55000-A | SHEET 1 OF 2


A1
PRINTER CONTROL TTO 616
A2
ACCUMULATOR TTO
A3
INPUT CIRCUIT TTO
J1 TO FRONT PANEL
J2 TO FRONT PANEL
J3 TO REAR PANEL
SEE J4 TO PRINTER
+12V
-12V
R2 1K
R3 360
R4 1K
R5 360
+12

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	1	UPDATED AUG 4, 1980	8-27-80	MJDD
	A	REVISED PER DCN 00782	3-13-81	BAC
	B	REVISED PER DCN 00879	3-18-81	BAC KAD
	C	REVISED PER ECO 00975	5-3-81	VIT KB





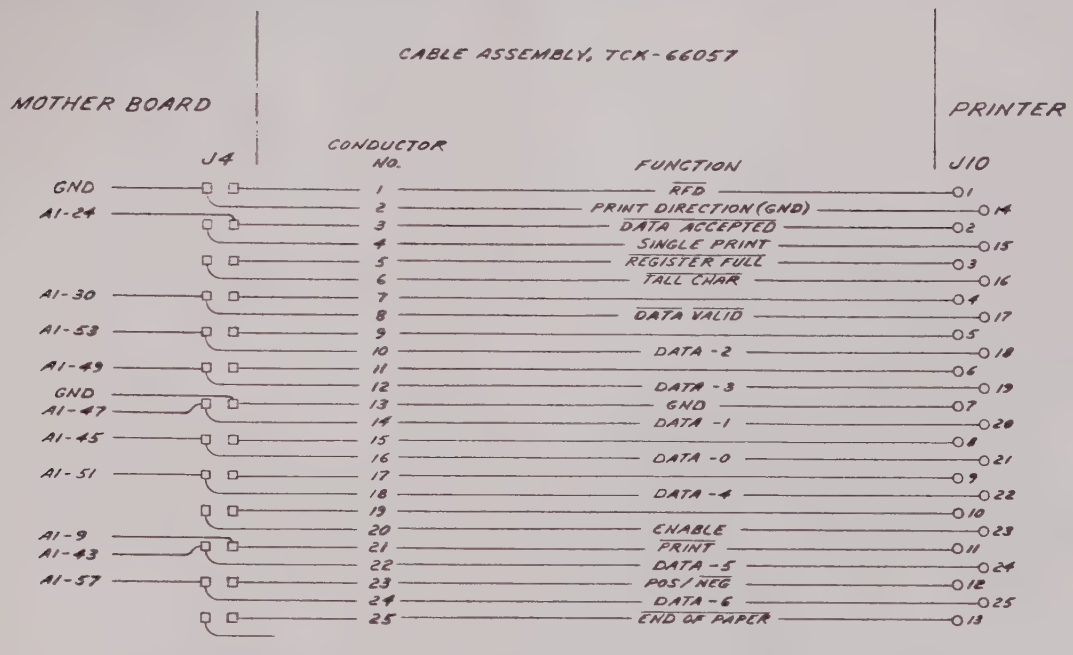
NOTES:

1. RESISTANCE VALUES ARE IN OHMS 1/4W, ±5%

MAR 07 1983

E1 — R1 240 — +5 VOLTS

WHERE APPLICABLE REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:	CONTR NO. DR K BERNARD 6/4/80 CHK BUDD 8-27-80 APPD R. Cooper APPROVED BY DIRECTION OF	tau-tron INC Chelmsford, Ma. 01824 DRAWING TITLE SCHEMATIC; MOTHER BOARD, S5000
TDS-66025 / S5000 NEXT ASSY / USED ON APPLICATION			SIZE D · CODE IDENT NO. · DRAWING NO. TDS-66024 · REV C SCALE · S5000 · SHEET 1 OF 2



INTERCONNECTION, MOTHER BOARD (J4) TO PRINTER (J10)

4 | 3 | 2 | 1

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
		SEE SH. 1		

D

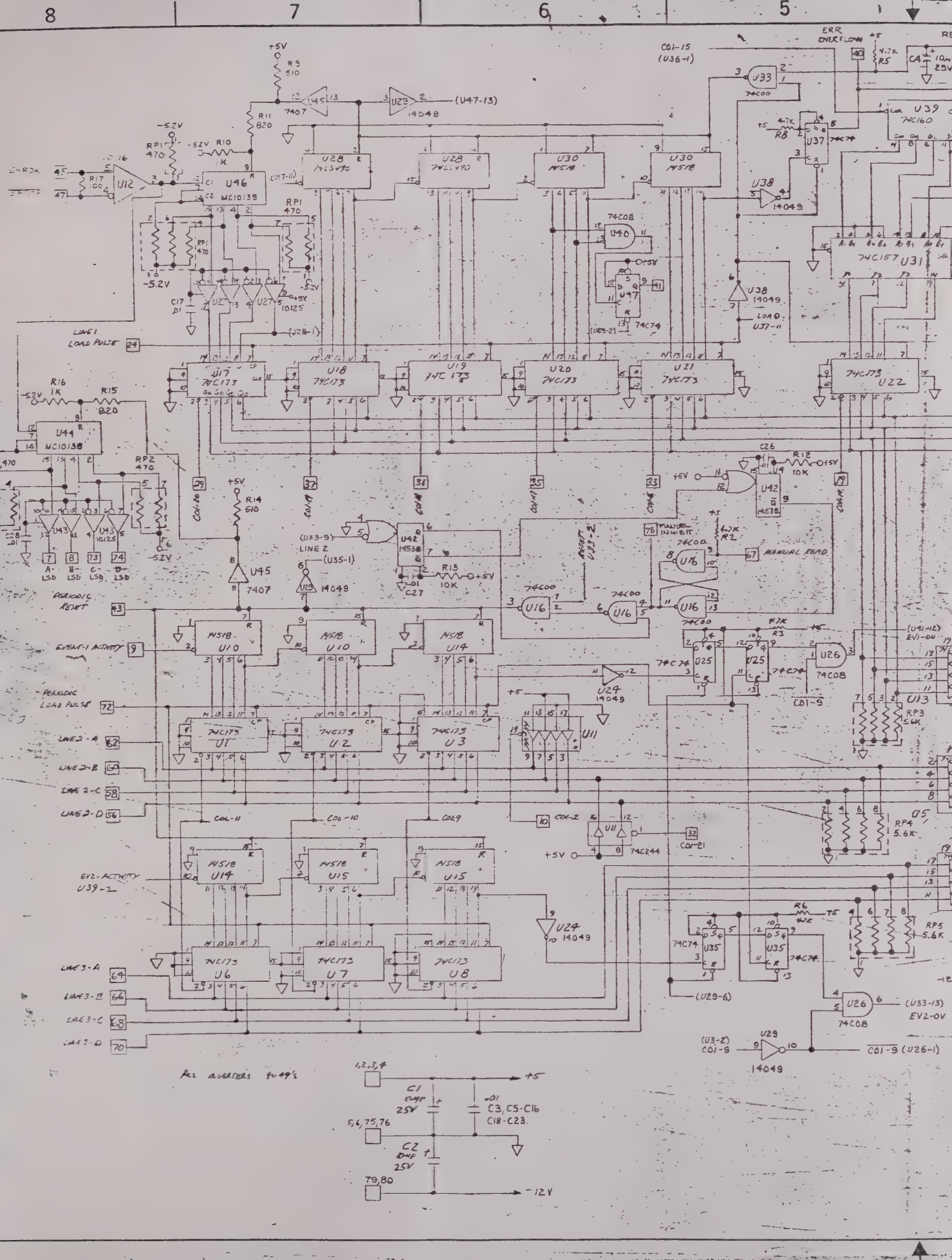
C

B

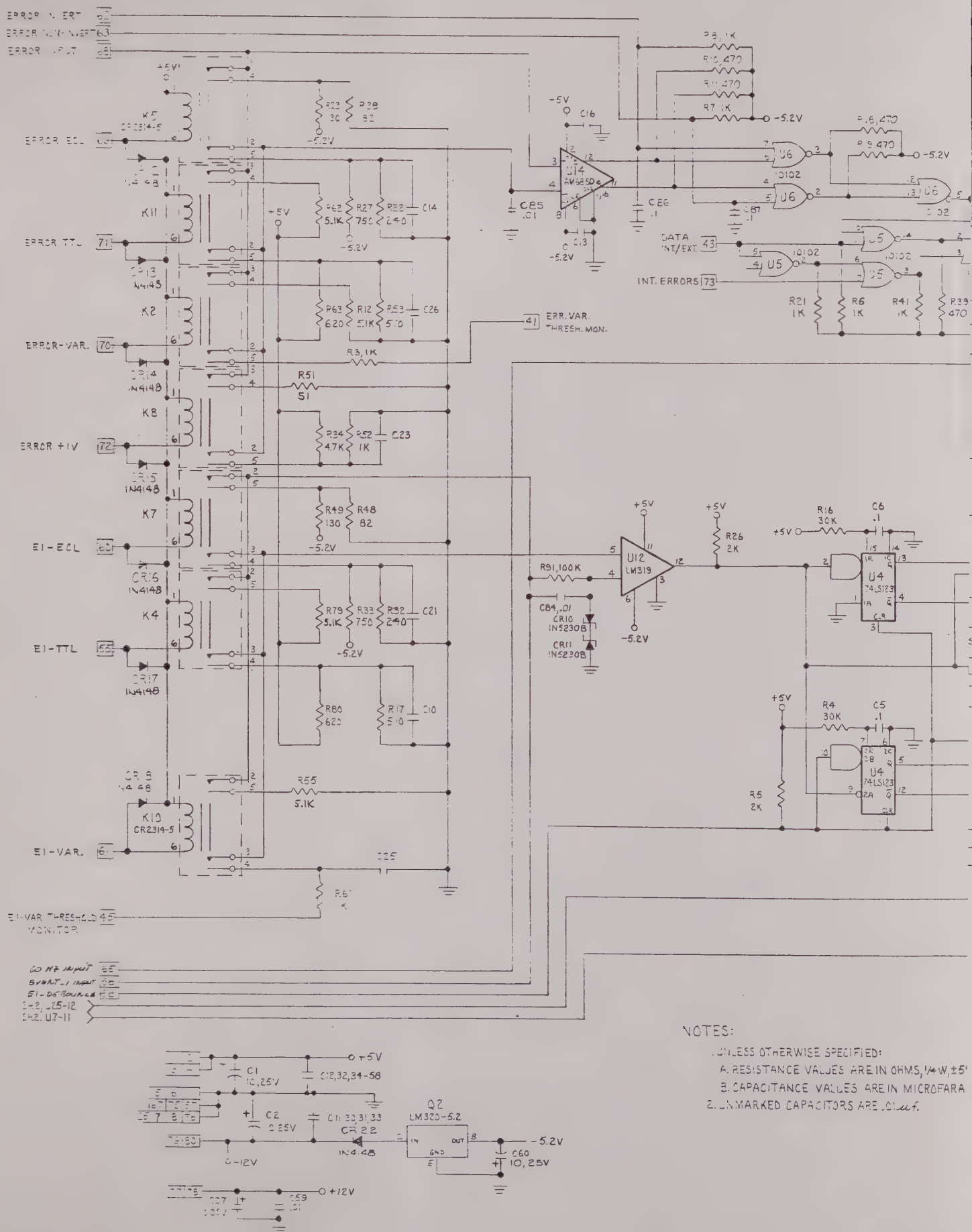
A

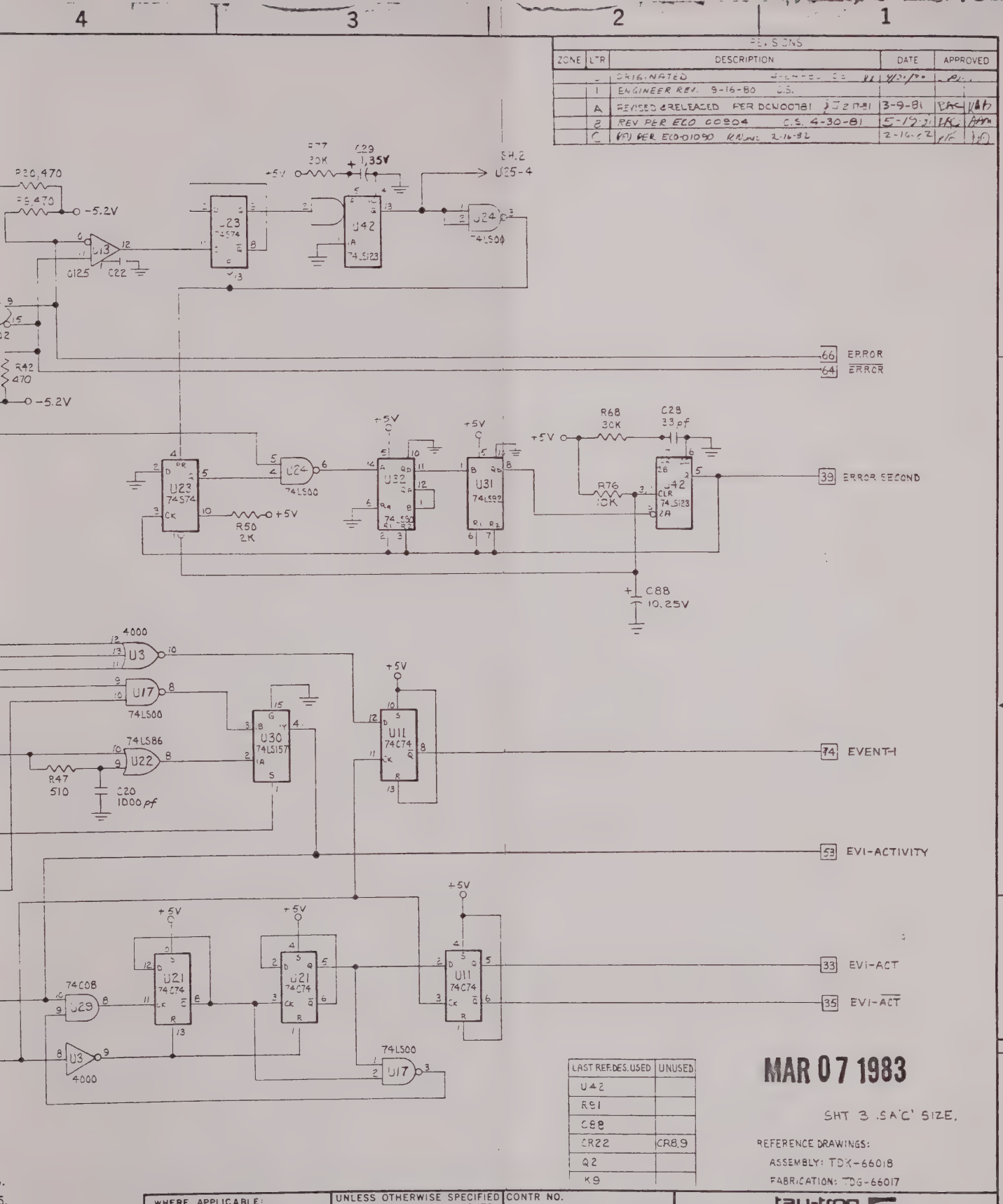
MAR 07 1983

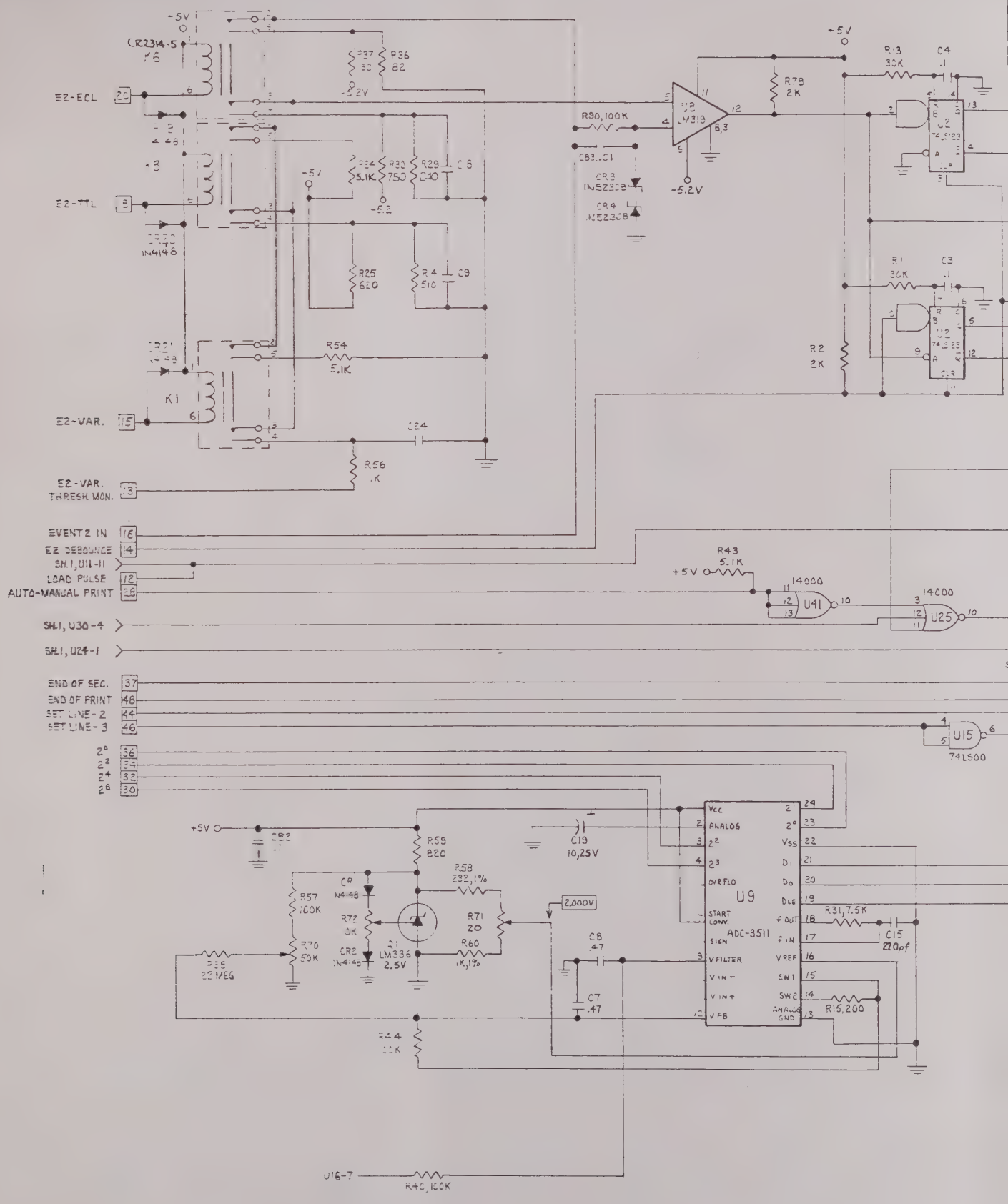
WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:	CONTR NO. DR Flanagan Mar 6, 81 CHK APPD K. Brampe 3/17/81 APPROVED BY DIRECTION OF	tau-tron inc Chelmsford, Mass. 01824 DRAWING TITLE SCHEMATIC; MOTHER BOARD, S5000
TDK-66025 / S5000 NEXT ASSY / USED ON APPLICATION			SIZE / CODE IDENT NO. / DRAWING NO. TDJ-66024 / REV C SCALE / SHEET 2 of 2


8
7
6
5
+5V
-5.2V
LINE1 LOAD PULSE
PERIODIC RESET
EVENT-1 ACTIVITY
PERIODIC LOAD PULSE
LINE2-A
LINE2-B
LINE2-C
LINE2-D
LINE3-A
LINE3-B
LINE3-C
LINE3-D
EV2-ACTIVITY U39-2
ERR OVERFLOW
MANUAL READ
MANUAL INHIBIT
All inverters 74049's
C1 10μF 25V
C2 10μF 25V
C3, C5-C16 C18-C23. .01
5,6,75,76
T9,80
-12V

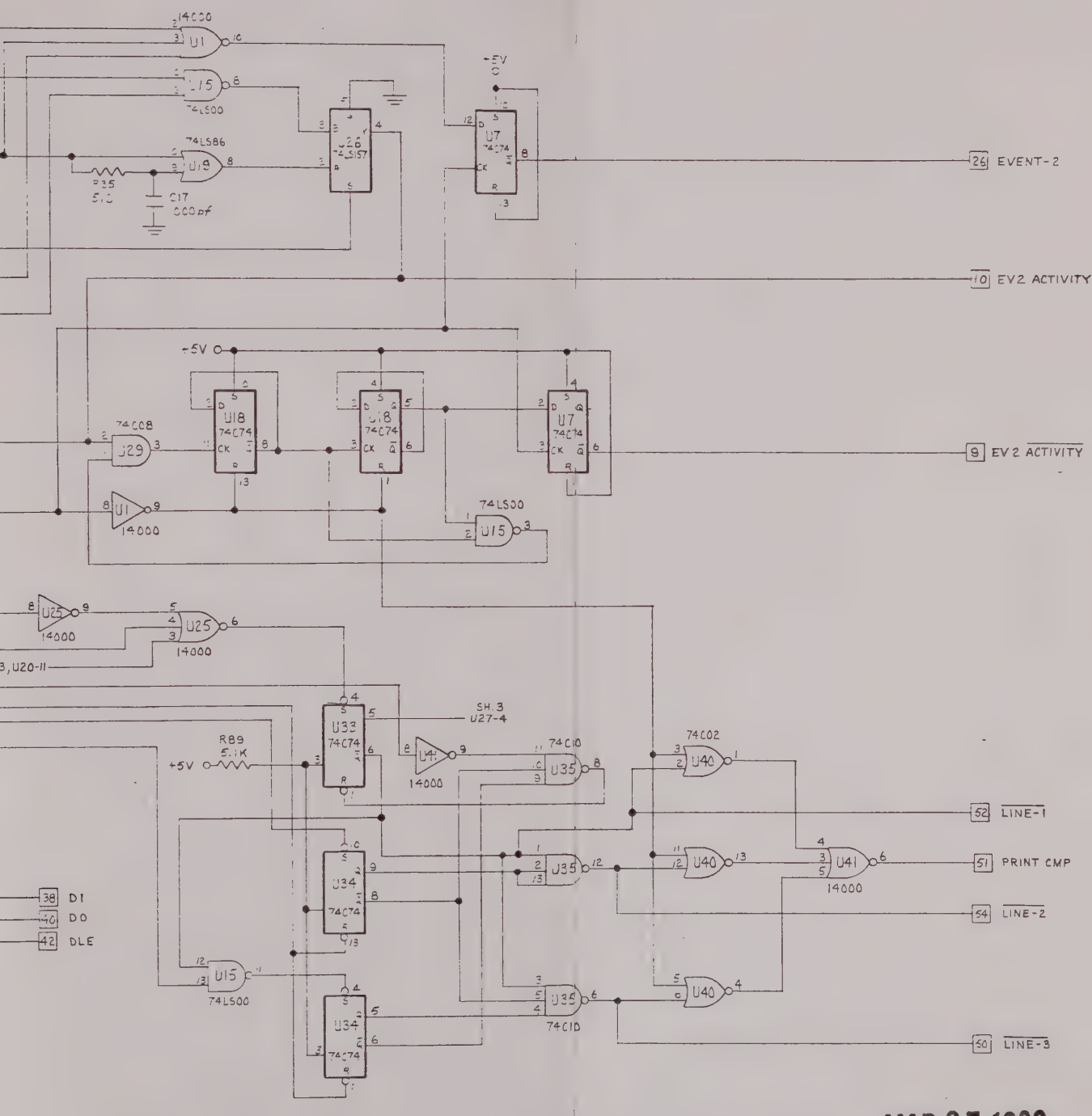
REVISIONS
ZONE | LTR | DESCRIPTION | DATE | APPROVED
0 ORIGINATED
1 REV PER ENG CHNGS, RELEASED TO PROD. C.S. 8-21-80 9-8-80 KAB 9-8-80
A REVISED & RELEASED PER DCL 00779 2-3-81 2-17-81 BAC KAB
B REV PER ECO/00959 Rdm=1K 9/8/81 3-15-81 KAB KB
C REV PER ECO-12-82 RELEASE 11-4-82 11-9-82 KC TD
ER-OVER / U40-4
EZ-OVER / U41-4
EV2 ACTIVITY
(U14-10)
U38 14049
C01-15
C01-19
RESET U33-2
74C08
EV2-ACT
EV1-ACT
EVENT-1
EVENT-2
A/D ±
U13
U23
U32
U38 14049
LINE1-D
LINE1-C
LINE1-B
LINE1-A
TO FRONT PANEL
U24 14049
U34 74C10
C01-11
C01-12
C01-9
C01-10
U9 LM339
RV RANGE
RV 6.7K
ER-OVER U37-9
C01-16 (U21-2)
U36-9 EZ-OVER
U25-9 EV1-OV
(U40-8)
(U26-6) EV2-OV
(U42-5)
C01-14 (U22-2)
(U41-13)
ERR-OV
RP4 5.6K
RP5 5.6K
PR-A
PR-B
PR-C
PR-D
NATIONAL VOLTAGE REG.
Q1
CR1 IN4148
CR2 IN4148
LM320T-5.2
C24 .01
C25 10, 25V TANT
-5.2V
LAST REF DES USED | UNUSED
U46
C28
R17 | R4
CR2
Q1
MAR 07 1983
WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES: ANGLES ±
FRACTIONS ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±
MATERIAL:
TDK-66008 | 55000
NEXT ASSY | USED ON
APPLICATION
CONTR NO.
DR K. BEAUPRE
CHKD LA PLANTE 25 MAR 80
APPD K. Beaupre 3-21-80
APPROVED
BY DIRECTION OF
tau-tron inc Chelmsford, Mass. 01824
DRAWING TITLE
ACCUMULATOR CIRCUITS SCHEMATICS
SIZE D
CODE IDENT NO.
DRAWING NO. D-66007
REV C
SCALE NONE
55000
SHEET 1 OF 1
66007


ERROR TTL
ERROR-VAR.
ERROR +1V
E1-ECL
E1-TTL
E1-VAR.
E1-VAR THRESHOLD MONITOR
ERR. VAR. THRESH. MON.
DATA INT/EXT
INT. ERRORS
+5V
-5.2V
+12V
-12V
LM319
74LS123
LM320-5.2
IN4148
IN5230B
NOTES:
1. UNLESS OTHERWISE SPECIFIED:
A. RESISTANCE VALUES ARE IN OHMS, 1/4W, ±5%
B. CAPACITANCE VALUES ARE IN MICROFARADS
2. UNMARKED CAPACITORS ARE .01uf.


4
3
2
1
D
C
B
A
REVISIONS
ZONE | LTR | DESCRIPTION | DATE | APPROVED
- | - | ORIGINATED | 4/20/80 | RL
- | 1 | ENGINEER REV. 9-16-80 C.S. | |
- | A | REVISED & RELEASED PER DCN00781 | 3-9-81 | PAC
- | 2 | REV PER ECO 00804 C.S. 4-30-81 | 5-19-81 | PAC
- | C | PER ECO-01090 | 2-16-82 | RF
R30,470
R29,470
-5.2V
U13
0125
C22
R77
30K
C29
1,35V
+5V
U42
74LS123
U24
74LS00
SH.2
U25-4
R42
470
-5.2V
66 ERROR
64 ERROR
U23
74S74
U24
74LS00
U32
74LS32
U31
74LS02
R50
2K
+5V
R68
30K
C28
33 pf
R76
10K
U42
74LS123
39 ERROR SECOND
C88
10.25V
4000
U3
U17
74LS00
74LS86
U22
R47
510
C20
1000 pf
U30
74LS157
U11
74C74
74 EVENT-I
53 EVI-ACTIVITY
74C08
U29
U21
74C74
U11
74C74
33 EVI-ACT
35 EVI-ACT
74LS00
U17
LAST REF.DES. USED | UNUSED
U42 |
R91 |
C88 |
CR22 | CR8,9
Q2 |
K9 |
MAR 07 1983
SHT 3 .SA'C' SIZE.
REFERENCE DRAWINGS:
ASSEMBLY: TDK-66018
FABRICATION: TDG-66017
TDJ-66019
WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES: ANGLES ±
FRACTIONS ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±
MATERIAL:
CONTR NO.
DR 4-24-80
CHK 25APR80
APPD 4/30/80
APPROVED
BY DIRECTION OF
tau-tron INC Chelmsford, MA. 01824
DRAWING TITLE
SCHEMATIC,
INPUT CIRCUIT BOARD
TDK-66018 | S5000
NEXT ASSY | USED ON
APPLICATION
SIZE D | CODE IDENT NO. | DRAWING NO. TDJ-66019 | REV C
SCALE — | S5000 | SHEET 1 OF 3


E2-ECL
E2-TTL
E2-VAR.
E2-VAR. THRESH MON.
EVENT2 IN
E2 DEBOUNCE
SH.I, U11-11
LOAD PULSE
AUTO-MANUAL PRINT
SH.I, U30-4
SH.I, U24-1
END OF SEC.
END OF PRINT
SET LINE-2
SET LINE-3
2.000V
ADC-3511
U9
74LS00
U15
U91
U25
U2
U19
LM336 2.5V
R90, 100K
R78 2K
R2 2K
R43 5.1K
R54 5.1K
R56 1K
R59 820
R58 232,1%
R57 100K
R72 3K
R71 20
R70 50K
R60 1K,1%
R44 100K
R31, 7.5K
R15, 200
C19 10,25V
C8 .47
C7 .47
C15 220pf
U16-7
R40, 100K

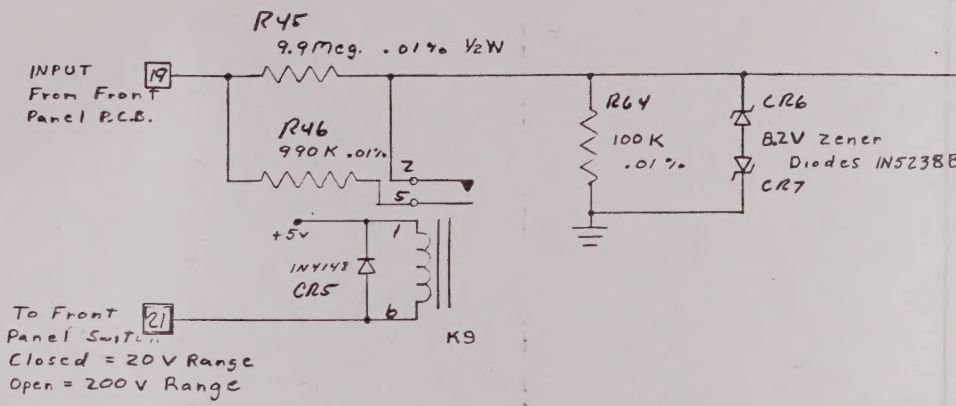
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		



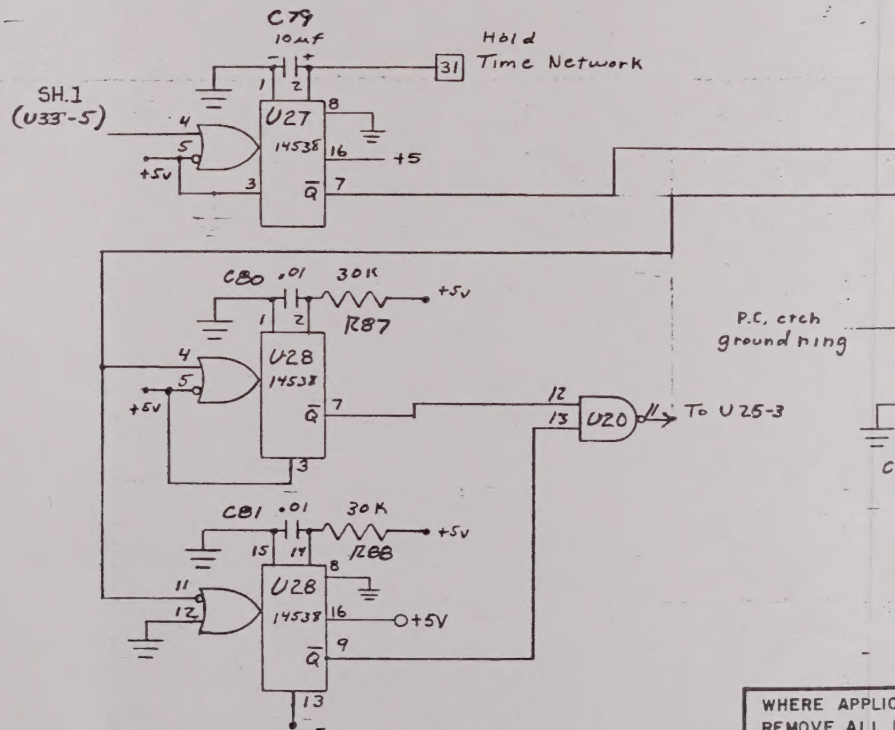
MAR 07 1983

WHERE APPLICABLE: REMOVE ALL BURRS & BREAK SHARP EDGES TO 1/64.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± 1 PLACE DECIMALS ± MATERIAL:	CONTR NO.		tau-tron INC Chelmsford, MA. 01824	
		DR C Smith	4-24-82	DRAWING TITLE	SCHEMATIC INPUT CIRCUIT BOARD
		CHK [illegible]	25APR80		
		APPD S Pinard	4/25/82		
TDK-6601B	55000	APPROVED		SIZE D	CODE IDENT NO.	DRAWING NO. TDJ-66019	REV C
NEXT ASSY	USED ON	BY DIRECTION OF		SCALE		SHEET 2 OF 3	
APPLICATION							

TDJ-66019

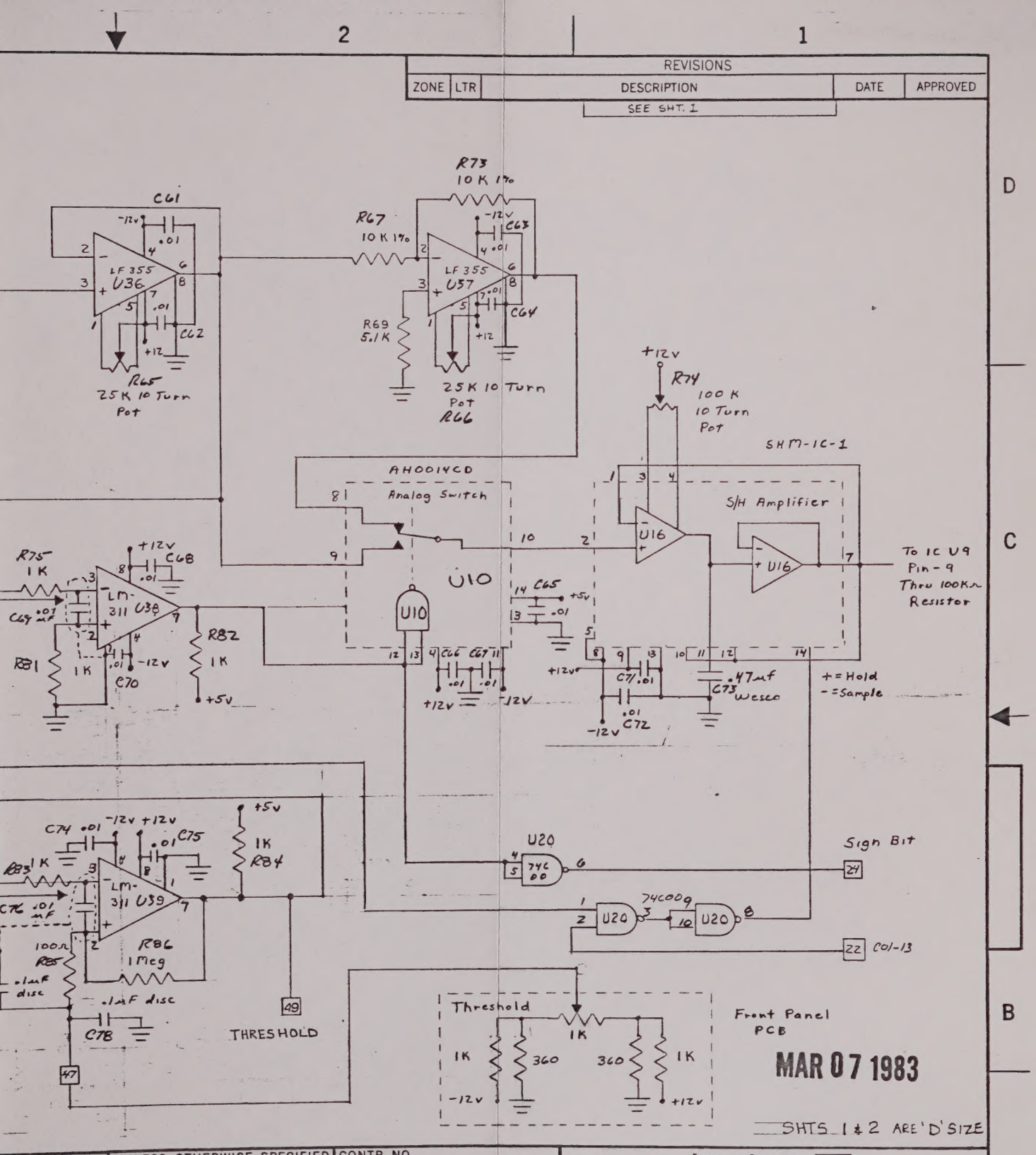


P.C. etch ground ring



P.C. etch ground ring

WHERE APPLIC	
REMOVE ALL	
SHARP EDGES	
TDK-66018	
NEXT ASSY	
APPL	


2
1
REVISIONS
ZONE | LTR | DESCRIPTION | DATE | APPROVED
SEE SHT. 1
D
C
B
A
C61
LF 355 U36
R65 25K 10 Turn Pot
R73 10K 1%
R67 10K 1%
LF 355 U37
C63
C64
R69 5.1K
25K 10 Turn Pot R66
+12V
R74 100K 10 Turn Pot
SHM-IC-1
AH0014CD Analog Switch
U10
S/H Amplifier
U16
To IC U9 Pin-9 Thru 100KΩ Resistor
+ = Hold
- = Sample
C65
C66
C67
C68
C69
C70
C71
C72
C73 .47mf Wesco
R75 1K
LM-311 U38
R81 1K
R82 1K
U20
74C00
Sign Bit
24
74C00
22 C01-13
C74
C75
R83 1K
LM-311 U39
R84 1K
R86 1Meg
100Ω R85
.1mF disc
C78
THRESHOLD
49
47
Threshold
1K
360
360
1K
Front Panel PCB
MAR 07 1983
SHTS 1 & 2 ARE 'D' SIZE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES: ANGLES ±
FRACTIONS ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±
MATERIAL:
CONTR NO.
DR C Smith 4-24-80
CHK
APPD
APPROVED
BY DIRECTION OF
tau-tron inc Chelmsford, Mass. 01824
DRAWING TITLE
INPUT CIRCUIT BOARD SCHEMATIC
SIZE C
CODE IDENT NO.
DRAWING NO. TCJ-66019
REV E
SCALE S5000
SHEET 3 of 3

Tau-Tron, Inc. 27 Industrial Ave., Chelmsford, MA 01824